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U.S. Department of the Interior  
Bureau of Land Management

Lakeview District Office  
HC10 Box 337, 301 South G. Street  
Lakeview, Oregon 97630

# Draft-Upper Klamath River Management Plan Environmental Impact Statement and Resource Management Plan Amendments *Volume 2 - Appendices*



**Draft-Upper Klamath River Management Plan/Environmental Impact Statement  
and Resource Management Plan Amendments — *Volume 2 - Appendices***

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
Lakeview District Office  
HC10 Box 337, 301 South G. Street  
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As the Nation’s principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interest of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under U.S. administration.

BLM/OR/WA/PL-02/038+1792

# List of Abbreviations and Acronyms

ACEC	- Area of Critical Environmental Concern	NOAA	- National Oceanic Atmospheric Administration
ACS	- Aquatic Conservation Strategy	NOI	- Notice of Intent
AUM	- Animal Unit Month	NPS	- National Park Service
BLM	- Bureau of Land Management	NRCS	- Natural Resources Conservation Service
BMP	- Best management practice	NRHP	- National Register of Historic Places
CA	- Conservation Agreement	NRI	- Natural Resources Inventory
CAA	- <i>Clean Air Act</i>	O&C	- <i>Oregon &amp; California Lands Act</i>
CDFG	- California Department of Fish and Game	ODA	- Oregon Department of Agriculture
CEQ	- Council on Environmental Quality	ODEQ	- Oregon Department of Environmental Quality
CFR	- Code of Federal Regulations	ODF	- Oregon Department of Forestry
CFS	- Cubic Feet per Second	ODFW	- Oregon Department of Fish and Wildlife
COE	- Corps of Engineers (Corps)	ODOT	- Oregon Department of Transportation
CSWRCB	- California State Water Resources Control Board	ODSL	- Oregon Division of State Lands
CWA	- <i>Clean Water Act</i>	OHV	- Off-Highway Vehicle (also known as Off-Road Vehicle)
CWD	- Coarse Woody Debris	ONHP	- Oregon Natural Heritage Program
DEQ	- Department of Environmental Quality	OPRD	- Oregon Parks and Recreation Department
DSL	- Division of State Lands	ORV	- Outstandingly Remarkable Value
EA	- Environmental Assessment	OWRD	- Oregon Water Resources Department
EIS	- Environmental Impact Statement	PAC	- Provincial Advisory Council
EPA	- Environmental Protection Agency	PDF	- Project Design Feature
ESA	- <i>Endangered Species Act</i>	PFC	- Proper Functioning Condition
ESU	- Evolutionary Significant Unit	PFW	- Partners for Wildlife
FACA	- <i>Federal Advisory Committee Act</i>	PRIA	- <i>Public Rangelands Improvement Act</i>
FERC	- Federal Energy Regulatory Commission	RC&D	- Resource Conservation and Development
FLPMA	- <i>Federal Land Policy and Management Act</i>	RIEC	- Regional Interagency Executive Committee
FONSI	- Finding of No Significant Impact	REO	- Regional Ecosystem Office
FTZ	- Fuel Treatment Zones	RMP	- Resource Management Plan
GIS	- Geographic Information System	RM	- River Mile
HABS/HAER	- Historic American Buildings Survey/ Historic American Engineering Record	ROD	- Record of Decision
HCP	- Habitat Conservation Plan	ROS	- Recreation Opportunity Spectrum
IAC	- Intergovernmental Advisory Committee	RRMP	- Redding Resource Management Plan
IBLA	- Interior Board of Land Appeals	SONCC	- Southern Oregon/Northern California Coastal
ICBEMP	- Interior Columbia Basin Ecosystem Management Project	SHPO	- State Historic Preservation Office
JITW	- Jobs in the Woods	SMA	- Special Management Area
KFRA	- Klamath Falls Resource Area	SRMA	- Special Recreation Management Area
KFRMP	- Klamath Falls (Resource Area) Resource Management Plan	SWCD	- Soil and Water Conservation District
KPAC	- Klamath Provincial Advisory Committee	T&E	- Threatened and Endangered
LAC	- Limits of Acceptable Change	TES	- Threatened, Endangered, and Sensitive (Species)
LCDC	- Land Conservation and Development Commission	TMDL	- Total Maximum Daily Load
LSR	- Late-Successional Reserve	TNC	- The Nature Conservancy
LUP	- Land Use Plan	USBR	- U.S. Bureau of Reclamation
MOA	- Memorandum of Agreement	USDA	- United States Department of Agriculture
MOU	- Memorandum of Understanding	USDI	- United States Department of Interior
NCA	- National Conservation Area	USFS	- United States Forest Service
NEPA	- <i>National Environmental Protection Act</i>	USFWS	- United States Fish and Wildlife Service
NFMA	- <i>National Forest Management Act</i>	USGS	- United States Geological Survey
NFP	- Northwest Forest Plan	VRM	- Visual Resource Management
NHPA	- <i>National Historic Preservation Act</i>	WQS	- Water Quality Standards
NMFS	- National Marine Fisheries Service	WSR	- Wild and Scenic River
NOA	- Notice of Availability	WSRA	- <i>Wild and Scenic Rivers Act</i>
		WQRP	- Water Quality Restoration Plan

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# Appendix A – Glossary of Terms

Following are definitions for terms used in this document.

-A-

Active preference: That portion of the total grazing preference for which grazing use may be authorized.

Activity plan: See “Implementation Plan.”

Adaptive management: Adaptive management is a process that allows the development of a plan when some degree of biological and socioeconomic uncertainty exists. It requires a continual learning process, a reiterative evaluation of goals and approaches, and redirection based on an increased information base and changing public expectations (Baskerville 1985).

Adjustments: Changes in animal numbers, periods of use, kinds or class of animals or management practices as warranted by specific conditions.

Allotment: An area of land where one or more livestock operators graze their livestock. Allotments generally consist of BLM lands but may also include other federally managed, state owned, and private lands. An allotment may include one or more separate pastures. Livestock numbers and periods of use are specified for each allotment.

Alluvium (or alluvial deposits): Sediment ranging in size from silt to cobbles transported and deposited by rivers and streams.

Amendment: The process for considering or making changes in the terms, conditions, and decisions of approved RMPs or MFPs using the prescribed provisions for resource management planning appropriate to the proposed action or circumstances. Usually only one or two issues are considered that involve only a portion of the planning area.

Anadromous fish: Fish that are born and reared in freshwater, move to the ocean to grow and mature, and return to reproduce. Salmon, steelhead, and shad are examples.

Animal unit month (AUM): A standardized measurement of the amount of forage necessary for the sustenance of one cow unit or its equivalent for 1 month (approximately 800 pounds of dry forage).

Aquatic habitat: Habitat that occurs in free water.

Area of Critical Environmental Concern (ACEC): Type of special land use designation specified within the “Federal Land Policy and Management Act” (FLPMA). Used to manage areas with important resource values in need of special management.

Assessment: The act of evaluating and interpreting data and information for a defined purpose.

-B-

Bank (or streambank): The area below the ordinary high water mark in a river or stream. The ordinary high water mark is defined by the U.S. Army Corps of Engineers as that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

Bankfull discharge: Associated with the flow of water that just fills the channel to the top of its banks to a point where water begins to overflow onto a floodplain.

(BLM) Backcountry byways: Vehicle routes that traverse scenic corridors utilizing secondary or back country road systems. National backcountry byways are different from other scenic byways based on the type of road and vehicle needed to travel the byway.

Baseflow: Water that percolates to groundwater and reaches the stream slowly over long periods of time.

Base property: Private lands owned or controlled by a livestock operator (permittee/lessee) which meet the regulatory definition of base property (43 CFR 4110.2-1a) and to which the grazing permit/lease is legally attached.

Benthic invertebrates: Aquatic invertebrates that use the river bottom and shoreline.

Best management practices (BMPs): Effective, feasible (including technological, economic, and institutional considerations) conservation practices and land- and water-management measures that avoid or minimize adverse impacts to natural and cultural resources. Best management practices may include schedules for activities, prohibitions, maintenance guidelines, and other management practices.

Boundaries: The areas that receive protection under the Wild and Scenic Rivers Act. Boundaries include an average of not more than 320 acres of land per mile, measured from the ordinary high water mark on both sides of the river. This equates to an average width of one-quarter mile on each side of the river.

Bureau sensitive species: Species eligible for federal listed or candidate, state listed, or state candidate status, and on List 1 in the Oregon Natural Heritage Program, or otherwise approved for this category by the State Director.

-C-

Candidate species: Any species included in the *Federal Register* notice of review that are being considered for listing as threatened or endangered by the U.S. Fish and Wildlife Service under the Endangered Species Act (ESA).

Carrying capacity: The maximum amount of recreational use that can be sustained while maintaining the quality of the recreational experience and natural resource conditions.

Channel: An open conduit either naturally or artificially created which periodically or continuously contains moving water or forms a connecting link between two bodies of water.

Channel stability: A relative term describing erosion or movement of the channel walls or bottom due to waterflow.

(BLM) Class I cultural inventory: An inventory of the existing literature and a profile of the current data base for cultural resources; frequently utilized to guide field inventories.

(BLM) Class II cultural inventory: A sample-oriented field inventory which is representative of the range of cultural resources within a finite study area.

(BLM) Class III cultural inventory: An intensive field inventory designed to locate and record, from surface and exposed profile, all cultural resources within a specified area.

Classification: The status of rivers or river segments under the Wild and Scenic Rivers Act (“wild,” “scenic,” or “recreational”). Classification is based on the existing level of access and human alteration of the site.

Climax: (See also Potential Natural Community.) The culminating stage in plant succession for a given site where vegetation has reached a highly stable condition.

Coarse woody debris (CWD): Pieces of wood with length greater than 10 feet and diameter greater than 6 inches.

Closed: Generally denotes that an area is not available for a particular use or uses; refer to specific definitions found in law, regulations, or policy guidance for application to individual programs. For example, 43 CFR 8340.0-5 sets forth the specific meaning of “closed” as it relates to OHV use, and 43 CFR 8364 defines “closed” as it relates to closure and restriction orders.

Collaboration: A cooperative process in which interested parties, often with widely varied interests, work together to seek solutions with broad support for managing public and other lands. This may or may not involve an agency as a cooperating agency.

Commercial (productive) forest land: Forest land which is producing, or has a site capable of producing, at least 20 cubic feet/acre/year of a commercial tree species.

Commercial tree species: Tree species whose yields are reflected in the allowable cut, which includes pines, firs, spruce, and Douglas fir.

Commission: The Oregon Parks and Recreation Commission.

Comprehensive management plan: A plan to protect and enhance a Wild and Scenic River.

Conditional suppression: Actions are based on predetermined, stringent conditions, i.e., fire location, weather condition, forces available, and fire size. Monitoring must be done throughout the fire’s duration and direct suppression will be taken if any one condition is exceeded.

Conformance: Means that a proposed action shall be specifically provided for in the land use plan or, if not specifically mentioned, shall be clearly consistent with the goals, objectives, or standards of the approved land use plan.

Connectivity: A measure of the extent to which conditions between late-successional/old-growth forest areas provide habitat for breeding, feeding, dispersal, and movement of fish and wildlife species associated with these late-successional/old-growth forest areas.

Conservation Agreement (CA): A formal signed agreement between the U.S. Fish and Wildlife Service or National Marine Fisheries Service and other parties that implements specific actions, activities, or programs designed to eliminate or reduce threats or otherwise improve the status of a species. CA’s can be developed at a State, regional, or national level and generally include multiple agencies at both the State and Federal level, as well as tribes. Depending on the types of commitments the BLM makes in a CA and the level of signatory authority, plan revisions or amendments may be required prior to signing the CA, or subsequently in order to implement the CA.

Consistency: Means that the proposed land use plan does not conflict with officially approved plans, programs, and policies of tribes, other Federal agencies, and State and local governments to the extent practical within Federal law, regulation, and policy.

Cooperating agency: Assists the lead Federal agency in developing an EA or EIS. The Council on Environmental Quality regulations for implementing NEPA define a cooperating agency as any agency that has jurisdiction by law or special expertise for proposals covered by NEPA (40 CFR 1501.6). Any tribe or Federal, State, or local government jurisdiction with such qualifications may become a cooperating agency by agreement with the lead agency.

Cover: Vegetation used by wildlife for protection from predators (escape cover) or to mitigate weather conditions (thermal cover). Also refers to: protection of the soil by plants (vegetative cover), protection of smaller plants by larger plants, and suitable protective habitat for aquatic organisms.

Critical habitat: The area of land, water, and airspace required for the normal needs and survival of a federally listed threatened or endangered species.

Cubic feet per second (cfs): A measure of stream discharge. One cfs equals about 10,000 gallons per day.

Cultural plants: Plants traditionally used by Native Americans for subsistence, economic, or ceremonial purposes.

Cultural resources: Fragile and nonrenewable elements of the physical and human environment including archaeological remains (evidence of prehistoric or historic human activities) and socio-cultural values traditionally held by ethnic groups (sacred places, traditionally utilized raw materials, etc.).

Cultural site: Any location that includes prehistoric and/or historic evidence of human use, or that has important socio-cultural value.

-D-

Deferred grazing: Discontinuance of livestock grazing on an area for specified period of time during the growing season to promote plant reproduction, establishment of new plants, or restoration of the vigor by old plants.

Discharge: (See also Streamflow.) The rate at which water flows, expressed in units of volume per time, such as cubic feet per second (cfs).

Dispersed/extensive recreation: Recreation activities of an unstructured type that are not confined to specific locations such as recreation sites. Example of these activities may be hunting, fishing, off-highway vehicle use, hiking, and sightseeing. Minimal management actions related to the Bylaws' stewardship responsibilities are considered adequate in the areas where extensive recreation takes place and explicit recreation management is not required.

Distribution: The uniformity of livestock grazing over a range area. Distribution is affected by the availability of water, topography, and type and palatability of vegetation as well as other factors.

Drainage (internal soil): The property of a soil that permits the downward flow of excess water. Drainage is reflected in the number of times and in the length of time water stays in the soil.

Drift (livestock drift): Roaming of livestock to areas outside of their authorized area of use.

Drive-to campground: A campground with associated parking adjacent to individual campsites.



-E-

Ecological status: Ecological status (also referred to as ecological condition) is the present state of vegetation of a range site in relation to the potential natural community for that site. It is an expression of the relative degree to which the kinds, proportions and amounts of plants in a plant community resemble that of the potential natural plant community for the site. Four classes are used to express the degree to which the production or composition of the present plant community reflects that of the potential natural community (climax). Departures from climax can enhance or depreciate the value of the resultant plant community for various uses.

Ecological status (seral stage): Percentage of present plant community that is climax for the range site:

Potential natural community	76–100
Late seral	51–75
Mid seral	26–50
Early seral	0–25

Ecosystem: A complete, interacting system of living organisms and the land and water that make up their environment; the home places of all living things, including humans.

Ecosystem management: The use of a “whole-landscape” approach to achieve multiple use management of public lands by blending the needs of people and environmental values in such a way that these lands represent diverse, healthy, productive, and sustainable ecosystems.

Endangered species: A plant or animal species which is in danger of extinction throughout all or a significant portion of its range, as designated by the Secretary of the Interior, and as is further defined by the “Endangered Species Act.”

Environmental Impact Statement (EIS): A public document required under the National Environmental Policy Act (NEPA) that identifies and analyzes activities that might affect the human and natural environment.

Ephemeral stream: A stream that flows only after rains or during snowmelt.

Erosion: The wearing away of the land surface by running water, wind, ice, or other geological agents.

Evaluation (Plan Evaluation): The process of reviewing the land use plan and the periodic plan monitoring reports to determine whether the land use plan decisions and NEPA analysis are still valid and whether the plan is being implemented.

Existing use: Means the use to which related adjacent land was being put on the date a river segment or lake was designated as a scenic waterway; or any subsequent change in use authorized under the Act or these rules.

-F-

Facilities: Buildings and the associated infrastructure such as roads, trails, and utilities.

Federal Land Policy and Management Act of 1976 (FLPMA): Public Law 94-579. October 21, 1976, often referred to as the BLM’s “Organic Act,” which provides the majority of the BLM’s legislated authority, direction, policy, and basic management guidance.

Federally reserved water rights: Water rights that arise from and are governed by federal, rather than state, law. These water rights are “reserved” to meet the purpose(s) of reserved lands (i.e., Wild and Scenic Rivers).

Fire management plan: A strategic plan that defines a program to manage wildland and prescribed fires and documents the fire management program in the approved land use plan; the plan is supplemented by operational procedures such as preparedness plans, preplanned dispatch plans, prescribed fire plans, and prevention plans.

Floodplain: The relatively flat area or lowlands adjoining a body of standing or flowing water which has been or might be covered by floodwater.

Flow exceedance: The percent of time that a given flow is equaled or exceeded during a given time period.

Forest land: Land that is now, or has the potential of being, at least 10 percent stocked by forest trees (based on crown closure) or 16.7 percent stocked (based on tree stocking).

Forward looking infrared radiometry (FLIR): Remotely sensed thermal imagery that measures the temperature of objects (such as water) by recording emitted radiation. This information is used to assess temperature patterns over large areas.

Free-flowing river: Existing or flowing in natural condition without impoundment, diversion, straightening, riprapping, or other modification of the waterway (as defined in the Wild and Scenic Rivers Act - 16 USC 1286 [b]).

Fuel treatment zone: A pre-designed and value-weighted area considered for any form of fire/fuels treatment. Pre-designation referring to the division of the Resource Area into blocks or areas for evaluation of current condition versus historic or naturally occurring seral stage in the presence of fire.

-G-

Genetic diversity: The variety within populations of a species.

Geographic Information System (GIS): A computer system capable of storing, analyzing, and displaying data and describing places on the earth's surface.

Goal: A broad statement of a desired outcome. Goals are usually not quantifiable and may not have established time frames for achievement.

Grazing lease: See Permit/Lease

Grazing system: The manipulation of livestock grazing to accomplish a desired result.

Grazing use supervision: On the ground inspections of public lands to ensure compliance with BLM grazing permits, leases, and/or yearly grazing authorizations.

Groundwater: Water contained in pore spaces of consolidated and unconsolidated surface material.

Guidelines: Actions or management practices that may be used to achieve desired outcomes, sometimes expressed as best management practices. Guidelines may be identified during the land use planning process, but they are not considered a land use plan decision unless the plan specifies that they are mandatory. Guidelines for grazing administration must conform to 43 CFR 4180.2.

-H-

Habitat: A specific set of physical and biological conditions that surround a species, group of species, or a large community. In wildlife management, the major constituents of habitat are considered to be food, water, cover, and living space.

Habitat diversity: The number of different types of habitat within a given area.

Herd area: The geographic area identified as having been used by wild horse or burro herds as their habitat in 1971.

Herd management area (HMA): Public land under the jurisdiction of the BLM that has been designated for special management emphasizing the maintenance of an established wild horse herd.

Herptiles/Herptofauna: Reptilian and amphibious vertebrates (snakes, lizards, frogs, etc.).

Historic: Refers to period wherein nonnative cultural activities took place, based primarily upon European roots, having no origin in the traditional Native American culture(s).

Historic American Building Survey/Historic American Engineering Record (HABS/HAER) – A national documentation standard promoted by the National Park Service.

Hydrograph: A graph of the rate of discharge plotted against time (usually hours or days) for a point in a stream channel

Hyporheic flow: Water that enters pore space within streambed alluvial deposits, travels along localized subsurface flow paths and re-emerges into the stream channel downstream.

Hyporheic zone: The area under the stream channel and floodplain that contributes to the stream.

-I-

Impact: A spatial or temporal change in the environment caused by human activity.

Implementation Decisions: Decisions that take action to implement land use plan decisions. They are generally appealable to IBLA under 43 CFR 4.40.

Implementation Plan: A site-specific plan written to implement decisions made in a land use plan. An implementation plan usually selects and applies best management practices to meet land use plan objectives. Implementation plans are synonymous with “activity” plans. Examples of implementation plans include interdisciplinary management plans, habitat management plans, and allotment management plans.

Impoundment: A dam or other structure to obstruct the flow of water in a river or stream.

Improvement: Means the placing on related adjacent land of any building or structure or modification of existing buildings or structures or the clearing, leveling, filling or excavating of related adjacent land.

Indian tribe (or tribe): Any Indian group in the conterminous United States that the Secretary of the Interior recognizes as possessing tribal status.

Interior Columbia River Basin Ecosystem Management Project (ICBEMP): An ongoing project examining the effects (on a large, regional scale) of past and present land use activities on the Interior Columbia River Basin ecosystem and a small part of the Great Basin ecosystem.

Intermittent stream: A stream that flows most of the time but occasionally is dry or reduced to pool stage.

Invasive juniper: Juniper stands less than 130 years old, which have expanded to vegetative sites not normally occupied by juniper due mainly to human-induced exclusion of natural fire.

Invasive Species: Species introduced into an environment in which they did not evolve and thus have no natural enemies to limit their reproduction and spread. The most successful invasive species have a number of characteristics in common, including fast growth and high reproductive rates, which allow them to “invade” new habitats and successfully compete with native species.

-L-

Lacustrine: Pertaining to, formed in, growing in, or inhabiting lakes.

Land Use Allocation: The identification in a land use plan of the activities and foreseeable development that are allowed, restricted, or excluded for all or part of the planning area, based on desired future conditions.

Land Use Plan (LUP): A set of decisions that establish management direction for land within an administrative area, as prescribed under the planning provisions of FLPMA; an assimilation of land-use-plan-level decisions developed through the planning process outlined in 43 CFR 1600, regardless of the scale at which the decisions were developed.

Land use plan level decision: Decisions involving land allocation or proposed use of the land. Does not include specific on-the-ground activity decisions. Establishes desired outcomes and actions needed to achieve them. Decisions are reached using the planning process in 43 CFR 1600. When they are presented to the public as proposed decisions, they can be protested to the BLM Director. They are not appealable to IBLA.

Limits of Acceptable Change (LAC): A framework for establishing acceptable and appropriate resource and social conditions in recreation settings. LAC represents a reformation of the carrying capacity concept, with the primary emphasis on the conditions desired in the area rather than on the amount of use an area can tolerate.

-M-

Main stem: The primary channel of the Klamath River where water flows at even the lowest levels.

Management decision: A decision made by the BLM to manage public lands. Management decisions include both land use plan level decisions and implementation (activity level) decisions.

Management zone: A geographical area for which management directions or prescriptions have been developed to determine what can and cannot occur in terms of resource management, visitor use, access, facilities or development, and park operations.



-N-

National Environmental Policy Act (NEPA): The federal act that requires the development of an environmental impact statement (EIS) for federal actions that might have substantial environmental, social, or other impacts.

National Historic Preservation Act (NHPA): Law establishing a program for the preservation of historic properties throughout the nation. It provides for the President's Advisory Council on Historic Preservation, formalizes the National Register, establishes federal grants for historic preservation and requires federal agencies to consult with the Advisory Council before affecting historical properties.

National Historic Trail (NHT): The National Trail System Act (NTSA) authorized creation of a national system of trails comprised of National Recreation Trails, National Scenic Trails, and National Historic Trails. National Historic Trails may only be designated by an act on Congress.

National Register of Historic Places: A register of districts, sites, buildings, structures, and objects, significant in American history, architecture, archaeology and culture, established by the "National Historic Preservation Act" of 1966 and maintained by the Secretary of the Interior.

Natural processes: All processes, such as hydrological, geological, or ecological, that are not the result of human manipulation.

Nonattainment: Locations where measured pollutant concentrations exceed National Ambient Air Quality Standards for a particular pollutant twice in one year.

Non-motorized watercraft: A class of boats that includes rafts, kayaks, inner tubes, and inflatable air mattresses.

Noxious weed: Noxious weeds are plants species designated under federal, state or local laws and ordinances to cause economic loss and/or harm the environment. Noxious weeds generally possess one or more of the following characteristics: aggressive and difficult to manage, poisonous, parasitic, toxic, a carrier or host of destructive insects or plant and animal diseases, and are non-native, new, or not common to the United States.

-O-

Objective: A description of a desired condition for a resource. Objectives can be quantified and measured and, where possible, have established time frames for achievement.

Open: Generally denotes that an area is available for a particular use or uses. Refer to specific program definitions found in law, regulations, or policy guidance for application to individual programs. For example, 43 CFR 8340.0-5 defines the specific meaning of "open" as it relates to OHV use.

Ordinary high water: The line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

Outstandingly Remarkable Value (ORV): Those resources in the corridor of a Wild and Scenic River that are of special value and warrant protection. Outstandingly Remarkable Values are the "scenic, recreational, geologic, fish and wildlife, historic, cultural or other

similar values...that shall be protected for the benefit and enjoyment of present and future generations” (16 USC 1272).

-P-

Peak flow: Annual high streamflows, typically generated by snow melt, not to be confused with peaking, which is associated with powerhouse operation.

Peaking: The act of altering powerhouse operations on a frequent (often daily) basis to meet electricity demands. Peaking causes discharge in the river to fluctuate widely.

Perennial (permanent) stream: A stream that has running water on a year-round basis under normal climatic conditions.

Permitted use: The forage allocated by, or under the guidance of, an applicable land use plan for livestock grazing in an allotment under a permit or lease; expressed in Animal Unit Months (AUMs) (43 CFR 4100.0-5).

Planning analysis: A process using appropriate resource data and NEPA analysis to provide a basis for decisions in areas not yet covered by an RMP.

Planning criteria: The standards, rules, and other factors developed by managers and interdisciplinary teams for their use in forming judgments about decision making, analysis, and data collection during planning. Planning criteria streamline and simplify the resource management planning actions.

Pool/Riffle ratio: The ratio of surface area or length of pools, to the surface area or length of riffles, in a given stream reach, frequently expressed as the relative percentage of each category. Used to describe quality of fish habitat.

Potential natural community: The biotic community (living organisms) that would become established if all successional sequences were completed without interferences by man under the present environmental conditions.

Prescription: A guideline that directs the management of a specific area by describing the type and intensity of activities, facilities, and park operations that can and cannot occur. See “management zone.”

Pristine: Unaltered, unpolluted by humans.

Provincial Advisory Committee: (PAC): A team consisting of representatives of federal agencies, states, American Indian tribes, and others providing/coordinating analyses at the province level to provide the basis for amendments to Forest and District Plans.

Public land: Land or interest in land owned by the United States and administered by the Secretary of the Interior through the BLM, except lands located on the Outer Continental Shelf, and land held for the benefit of Indians, Aleuts, and Eskimos.

-R-

Ramping: The act of increasing or decreasing river flows to allow peaking

Ramp rate: The maximum allowable rate of change in outflow from a powerhouse

Random Selection: The process whereby the weighted values of each Fuel Treatment Zone are compared to a randomly generated list of numbers to determine selection for treatment. A pseudo-natural selection to mimic natural processes. (Described in EA# OR-014-94-09 and the Klamath Falls RMP/EIS/ROD.)

Rangeland Health Standards Assessment: A process that analyzes existing monitoring and resource condition information to characterize the general health of a grazing allotment within the framework of the five standards for rangeland health (i.e., Bureau-wide resource condition objectives).

Rearing habitat: Areas in rivers or streams where juvenile salmon and trout find food and shelter to live and grow.

Record of Decision (ROD): The public document describing the decision made on selecting the “preferred alternative” in an environmental impact statement. See “environmental impact statement.

Recreation Experience Opportunity (REO): The opportunity for a person to realize predictable psychological and physiological outcomes from engaging in a specific recreation activity within a specific setting.

Recreation Opportunity Spectrum (ROS): A continuum used to characterize recreation opportunities in terms of setting, activity, and experience opportunities. The spectrum is comprised of six classes.

Refugia: Areas where conditions have enabled a species or a community of species to survive.

Related adjacent land: Means all land within one-fourth of one mile (measured horizontally or level, as in usual surveying practice) of the bank on each side of a river within a scenic waterway, except land that, in the Commission’s judgment, does not affect the view from the waters within a scenic waterway.

Resident trout: Non-anadromous form of red-band trout. Trout remaining in freshwater through its full life cycle.

Riparian corridor: Areas adjacent to streams and wetlands on non-Federal land, mapped for analytical purposes.

Riparian habitat: (also referred to as Riparian Areas) Defined as a specialized form of wetland restricted to areas along, adjacent to, or contiguous with perennially and intermittently flowing rivers and streams; also, periodically, flooded lake and reservoir shore areas, as well as lakes with stable water levels with characteristic vegetation.

Riparian reserves: Buffers designated along all streams, lakes, ponds, wetlands, unstable areas and potentially unstable areas which are subject to standards and guidelines designed to conserve aquatic and riparian-dependant species. Riparian reserves apply only to Federal land.

Riprap: A layer of large, durable fragments of broken rocks specially selected and graded, thrown together irregularly or fitted together to prevent erosion by waves or currents.

River bank: The banks of a river are the boundaries that confine the water to its channel throughout its entire width when the stream is carrying high water at the elevation to which it ordinarily rises annually in season. Generally this will be the line at which the land becomes dominantly influenced by the river and takes on the characteristics of a riverbed and is thereby set apart from the uplands.

River corridor: The area within the boundaries of a Wild and Scenic River (e.g., the Klamath River corridor).

Riverine: Of or relating to a river. A riverine system includes all wetlands and deepwater habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergent vegetation, emergent mosses, or lichens, and (2) habitats with water containing ocean-derived salts in excess of 0.5%. A channel is an open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water.

River left/River right: Terms used by whitewater boaters to differentiate river channels and banks. Refers to the side of the river, left or right, when looking downstream.

River mile: Distance measured from the mouth of a river to its headwaters.

River protection overlay: A buffer area within and adjacent to the river that allows for the protection and restoration of natural and aquatic ecosystem processes

Road: Means any roads, public or private.

Rosgen stream classification: A stream classification system developed by D. Rosgen to stratify streams based on valley form, channel form, and sediment distribution patterns.

-S-

Scale: Refers to the geographic area and data resolution under examination in an assessment or planning effort.

Scenic easement: Means the acquired right to control the use of related adjacent land, including airspace above such land, for the purpose of protecting the scenic view from waters within a scenic waterway.

Scenic waterway: Means a river, lake or segment thereof, including related adjacent land and the airspace above that has been so designated by or in accordance with the Act.

Seen from the water: See Visible from the River.

Short-term: The period of time during which the River Plan will be implemented.

Silviculture: The science and art of manipulating a forest to meet landowner objectives.

Soil compaction: An increase in bulk density (weight per unit volume) and a decrease in soil porosity resulting from applied loads, vibration, or pressure.

Soil displacement: The removal and horizontal movement of soil from one place to another by mechanical forces.

Spawning habitat: Typically refers to habitat suitable for fish reproduction.

Special status species: Includes proposed species, listed species, and candidate species under the ESA; State-listed species; and BLM sensitive, assessment, and tracking species, and Survey and Manage species under the Northwest Forest Plan within the range of the Northern Spotted Owl (see BLM Manual 6840 - Special Status Species Policy and OR/WA 6840 policy IM OR-91-57).

Species diversity: The number, different kinds, and relative abundance of species.



Stage: The elevation of the water surface

Standard: A description of the physical and biological conditions or degree of function required for healthy, sustainable lands (e.g., land health standards).

State Implementation Plan (SIP): A strategic document, prepared by a State (or other authorized air quality regulatory agency) and approved by the U.S. Environmental Protection Agency, that thoroughly describes how requirements of the Clean Air Act will be implemented (including standards to be achieved, control measures to be applied, enforcement actions in case of violation, etc.).

Strategic Plan (BLM Strategic Plan): A plan that establishes the overall direction for the BLM. This plan is guided by the requirements of the Government Performance and Results Act of 1993, covers a 5-year period, and is updated every 3 years. It is consistent with FLPMA and other laws affecting the public lands.

Stream order: A hydrologic system of stream classification based on stream branching. Each small unbranched tributary is a first order stream. Two first order streams join to make a second order stream. Two second order streams join to form a third order stream, and so forth.

Suspended sediment: Sediment suspended in a fluid by the upward components of turbulent currents or by colloidal suspension.

-T-

The Nature Conservancy (TNC): Private national and international organization dedicated to the preservation of biological diversity.

Thriving natural ecological balance: The condition of the public range that exists when management objectives have been achieved that will: (1) sustain healthy populations of wild horses and burros, wildlife, and livestock on public land, and (2) protect the desired plant community from deterioration.

Total Maximum Daily Load (TMDL): An estimate of the total quantity of pollutants (from all sources: point, nonpoint, and natural) that may be allowed into waters without exceeding applicable water quality criteria.

Turbidity: An interference to the passage of light through water due to insoluble particles of soil, organics, microorganisms and other materials.

-U-

User capacity: As it applies to parks, user capacity is the type and level of visitor use that can be accommodated while sustaining the desired resource and social conditions based on the purpose and objectives of a park unit.

U-Shaped valley: A glacially carved valley having a pronounced parabolic cross-sectional profile suggesting the form of a broad letter “U” and characterized by steep sides and a nearly flat bottom.

-V-

Visible from the River: Means not entirely concealed from view from the river within a scenic waterway by topography. Land beyond the boundaries of “related adjacent land,” whether or not visible from the river, is not within the jurisdiction of this Act.

Visitor experience: The perceptions, feelings, and reactions a park visitor has in relationship with the surrounding environment.

Visitor Experience and Resource Protection (VERP): A process developed for the National Park Service to help manage the impacts of visitor use on the visitor experiences and resource conditions in national parks.

V-Shaped valley: A valley having a pronounced cross-profile suggesting the letter “V”, characterized by steep sides and short tributaries. Specifically, a young narrow valley resulting from downcutting by a stream.

-W-

Walk-in campground: A campground with consolidated parking areas separated from the individual campsites. Campers walk a short distance from the parking area to their campsites.

Water resources projects: Any dam, water conduit, reservoir, powerhouse, transmission line, or other project works under the Federal Power Act, or other construction of developments that would affect the free-flowing characteristics of a wild and scenic or congressionally authorized study river. In addition to projects licensed by the Federal Energy Regulatory Commission, water resources projects may also include: dams; water diversion projects; fisheries habitat and watershed restoration/ enhancement projects; bridges and other roadway construction/reconstruction projects; bank stabilization projects; channelization projects; levee construction; recreation facilities such as boat ramps and fishing piers; and, activities that require a 404 permit from the U.S. Army Corps of Engineers (IWSRCC 1999).

Watershed: The region drained by, or contributing water to, a stream, lake, or other body of water. Synonym: basin or drainage basin.

Water quality: The chemical, physical, and biological characteristics of water.

Wetland: Wetlands are defined by the U.S. Army Corps of Engineers (CFR Section 328.3[b], 1986) as those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

Width-to-depth ratio: The water surface width measurement at bankfull discharge divided by the average channel depth.

Withdrawal: Withholding of an area of Federal land from settlement, sale, location, or entry under some or all of the general land laws, for the purpose of limiting those laws in order to maintain other public values in the area or reserving the area for a particular public purpose or program; or transferring jurisdiction over an area of Federal land from one department, bureau, or agency to another.

100-year floodplain: The area along the river corridor that would receive floodwaters during a 100-year flood event. A 100-year flood event has the probability of occurring 1% of the time during any given year. If a 100-year flood event occurs, the following year will still have the same probability for occurrence of a 100-year event. For the purposes of this plan, the 100-year floodplain also includes wetlands and meadows associated with the hydrologic and ecological processes of the river.

# Appendix B - List of Preparers and Plan Development Team

The following list of individuals are involved with development of the River Plan and EIS (see Table B-1). The collaborative planning process illustrated in Figure B-1 below is designed to allow for inter-governmental and general public interaction to identify issues and complete the planning process. The interdisciplinary team of resource specialists assists with public involvement and uses input to develop and analyze alternatives. The interagency advisory Committee provides input relevant to their respective agency to the ID Team through the Klamath Falls Field Manager. Similarly, the Upper Basin Subcommittee of the Klamath Provincial Advisory Committee (that oversees the implementation of the Northwest Forest Plan) provides input to the Field Manager. The Klamath Falls Field Manager provides information and recommendations through the Lakeview District Manager and the Redding Field Manager to the State Directors of Oregon and California. The State Directors will ultimately make decisions based on the proposed River Plan and analysis.

**Table B-1. List of Preparers**

## Individuals Involved With Development Of The River Plan And EIS

### Management

<u>Name</u>	<u>Responsibilities/Position</u>	<u>Qualifications</u>
Steven A. Ellis	Management Guidance/ Lakeview District Manager	B.S. Forestry, Southern Illinois University, Carbondale; M.S. Soils and Atmospheric Science, Northern Illinois University, DeKalb. BLM, 23 years.
Teresa A. Raml	Management Guidance/ Klamath Falls Resource Area Field Manager	B.S. Wildlife Biology, Colorado State University. USFS, 22 years; BLM, 3 years.
Chuck Schultz	Management Guidance/ Redding BLM Field Manager	B.S. Wildlife Management, University of Nevada, Reno, NV. BLM 29 years

### Interdisciplinary Team

<u>Name</u>	<u>Responsibilities/Position</u>	<u>Qualifications</u>
Leslie Brown	Data Processing/Information Receptionist	Education in Progress at Oregon Institute of Technology. Private Industry, 10 years; BLM, 6 months.
Patty Buettner	Bats, Non-Game Birds/Wildlife Biologist	B.S. Fishery Biology, Humboldt State University. CDFG, 1 year; USFWS, 7.5 years; USFS, 5.5 years; BLM, 7 years.
Tom Cottingham	Land Tenure, Rights-of-Way, Easements/Realty Specialist	B.S. Wildlife Management and Post Graduate Work at Humboldt State University. USFWS, 6 months; BLM, 23 years.
Michael L. Cutler	Soils/Botanist	B.S. Forest Biology, Utah State University. USFS, 2 years; BLM, 9 years.

**Interdisciplinary Team**

<u><b>Name</b></u>	<u><b>Responsibilities/Position</b></u>	<u><b>Qualifications</b></u>
Michelle Durant	Cultural Resources/ Archaeologist B.S. Anthropology, MA	Anthropology, Central Washington University. BLM 8 years
Joe Foran	Fire Management/Fuels Management Specialist	A.A. Wood Industries, Southwestern Oregon Community College. USFS, 1 year; BLM, 30 years.
Larry Frazier	Team Leader/ Supervisory Natural Resource Specialist	B.S. Forest Resource Management, Humboldt State University. USFS, 2 years; BLM, 24 years.
Leslie Frewing- Runyon	Economics/ Planning and Environmental Coordinator	B.A. Economics, Willamette University. BLM, 13 years.
Don Hoffheins	Planning/Environmental Coordination	B.S. Agronomy, New Mexico State University. USFS, 26 years; BLM, 1 year.
Jan E. Houck	State Scenic Waterway Coordinator/ Natural Resource Specialist	B.S. Leisure Studies, Arizona State University. Oregon Parks and Recreation Department, 22 years.
Bill Johnson	Upland Forests, Vegetation/ Silviculturist	B.S. Forestry, University of Montana. USFS, 3 years; BLM, 32 years.
Trisha Roninger	Spotted Owl, Mountain Quail/ Wildlife Technician	B.S. Wildlife Biology, University of California, Davis. BLM, 5 years.
Michael Limb	Spatial Database Creation, Management/ GIS Coordinator	B.S. Forestry/Range Management, M.S. Natural Resource Mgmt/Landscape Ecology, University of Nevada, Reno. University, 3 years; BLM, 3 years.
Bill Lindsey	Grazing/ Rangeland Management Specialist	B.S. Rangeland Resource Management, Oregon State University. BLM, 24 years.
Kathy Lindsey	Technical Writer/Editor	B.S. Wildlife/Range Management, University of Nevada, Reno. BLM, 12 years.
Brian McCarty	Road Management/Civil Engineering Technician	A.A.S. Natural Resources, Vermilion Community College, Minnesota. USFS, 1 year; BLM, 21 years.
Robert Roninger	Herptiles, Aquatic Mollusks, Wildlife and Fisheries/Biological Technician	B.S. Natural Resource Management, California State University, Chico. BLM, 5 years.
V. Scott Senter	Recreation, Wild and Scenic River, Visual Resources/ Outdoor Recreation Planner	B.S. Forest Management, University of Washington. BIA, 1 year; BLM, 22 years.
Gayle Sitter	Wildlife, Riparian, Old Growth Ecosystems/ Wildlife Biologist	B.S. Wildlife Management, University of Minnesota; M.S. Wildlife Resources, University of Idaho. Minnesota Dept. of Natural Resources, 5 years; USFS, 2 years; USGS, 6 months; BLM, 23 years.
Scott Snedaker	Fisheries Biology, Aquatic Threatened - Endangered Species Mgmt/ Fisheries Biologist	B.S. Fisheries Science, Oregon State University. Washington Dept. of Fish & Wildlife, 6 months; ODFW, 2 years; BLM, 5 years.



**Interdisciplinary Team**

<b><u>Name</u></b>	<b><u>Responsibilities/Position</u></b>	<b><u>Qualifications</u></b>
Maple A. Taylor	Writer/Editor	B.S. Wildlife Science, New Mexico State University; M.S. Range and Wildlife Mgmt, Texas Tech University. BLM, 6 years.
Michael Turaski	Water Resources, Riparian, Road Management	B.S. Geology, University of Oregon, M.S. Physical Geography, M.S. Water Resources Management, University of Wisconsin, Madison. BLM, 2 years.
Grant Weidenbach	Visual Resources, Recreation/River Ranger	B.A. Psychology, Augsburg College. BLM, 13 years.
Louis Whiteaker	Special Status Plants, Biological Diversity/ Botanist	B.S. Finance, University of S. California; M.S. Botanical Sciences, University of Hawaii. Univ. of Hawaii, 5 years; Stanford Univ., 2 years; NPS, 3 years; BLM, 11 years.

**Other BLM Reviewers**

<b><u>Name</u></b>	<b><u>Office Represented and Expertise</u></b>
Francis Berg	Redding Field Office – Chief, Lands and Resources
Bill Kuntz	Redding Field Office – Lead Outdoor Recreation Planner
Glen R. Miller	Redding Field Office – Planning & Environmental Coordinator.
Joe Molter	Redding Field Office – Botanist, Range Management Specialist
Eric Ritter	Redding Field Office – Archeologist
Ron Rogers	Redding Field Office – Geologist
Mike Truden	Redding Field Office – Lead Realty Specialist
George Buckner	Oregon State Office – Wildlife Ecologist
Al Dolker	Oregon State Office - Fisheries Biologist
Louisa Evers	Oregon State Office - Fire Ecologist
Leslie Frewing-Runyon	Oregon State Office - Planner
Richard Hanes	Oregon State Office - Archeologist
Dave Harmon	Oregon State Office - Forester
Jerry Magee	Oregon State Office - NEPA Specialist
Rosie Mazaika	Oregon State Office - Water Policy Specialist
Craig McKinnon	Oregon State Office – Range Management Specialist
Allison O'Brian	Oregon State Office - Land Law Examiner
Joan SeEVERS	Oregon State Office - Botanist
John Styduhar	Oregon State Office - Realty Specialist
Margaret Wolf	Oregon State Office - Recreation Planner
Christina Caswell McElroy	Oregon State Office - Socioeconomics

**Interagency Advisory Committee**

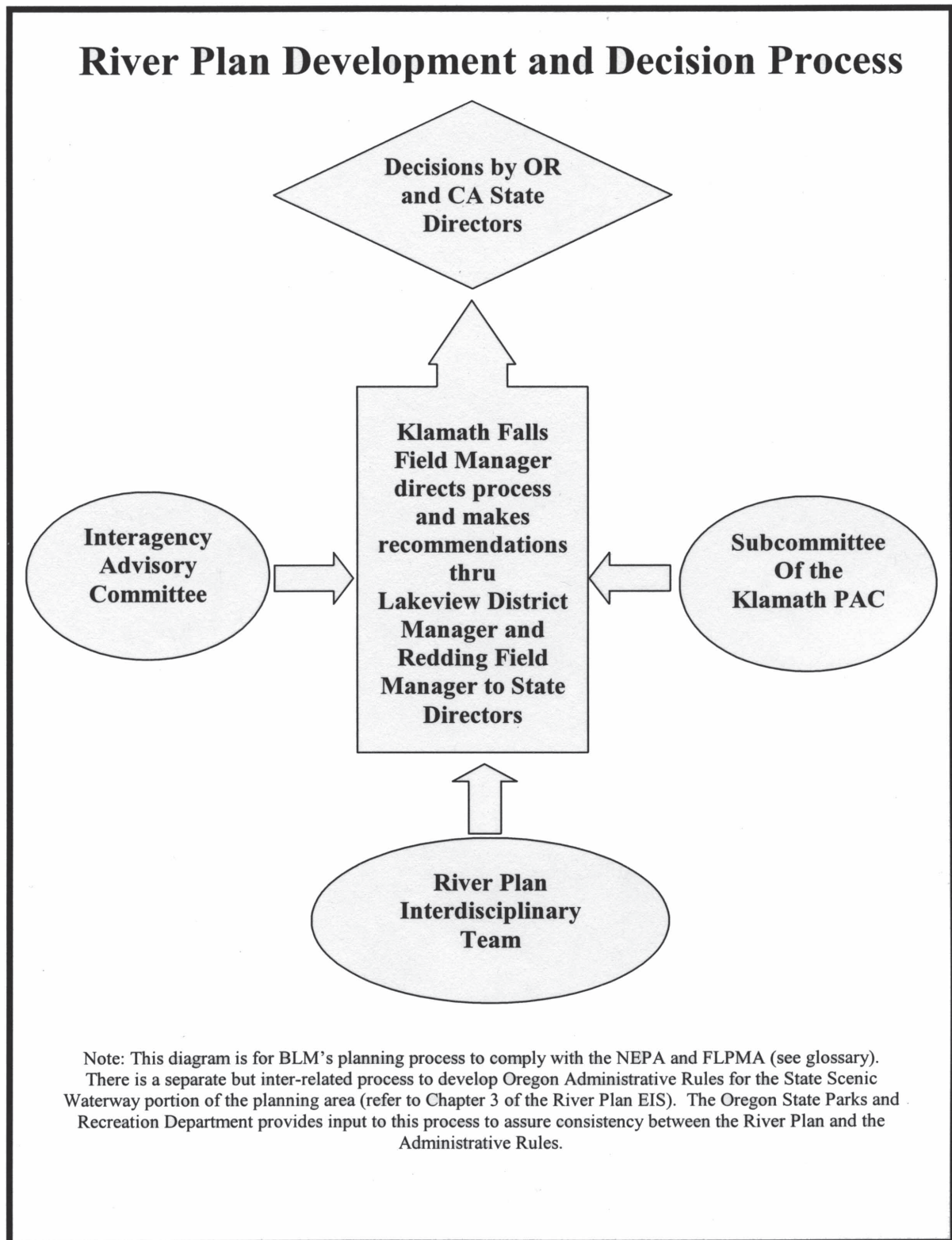
<b><u>Name</u></b>	<b><u>Agency Represented or Role</u></b>
Phil Detrich	US Fish and Wildlife Service
Randy Brown	US Fish and Wildlife Service
Robbie Vanderwater	USFS-Klamath & Six Rivers NF
Lynda Carnes	USFS-Klamath & Six Rivers NF
Peg Bolan	USFS-Klamath & Six Rivers NF
Jim Kilgore	USFS-Klamath & Six Rivers NF
Donald Reck	National Marine Fisheries Services
Shanna W. Draheim	US Environmental Protection Agency
Chuck Shultz	Bureau of Land Management
Russ Kanz	California Water Resources Control Board
Annie Manji	California Department of Fish and Game

Mike Rode	California Department of Fish and Game
Melissa Miller-Henson	Resources Agency
Denis Maria	California Department of Fish and Game
Joan Smith	Siskiyou County Commissioner
Jim DePree	Siskiyou County Natural Resource Specialist
Dan Fritz	US Bureau of Reclamation
Mark Buettner	US Bureau of Reclamation
Steve Lewis	US Fish and Wildlife Service
Ron Larson	US Fish and Wildlife Service
Doug Laye	US Fish and Wildlife Service
Paul DeVito	Oregon Department of Environmental Quality
Roger Smith	Oregon Department of Fish and Wildlife
Amy Stuart	Oregon Department of Fish and Wildlife
Del Sparks	Oregon Water Resources Department
Kyle Gorman	Oregon Water Resources Department
Bill Fujii	Oregon Water Resources Department
Dick Nichols	Oregon Department of Environmental Quality
Bill Hunt	Oregon Department of Forestry
Paul Donheffner	Oregon Marine Board
Steve West	Klamath County Commissioner
Tim Evinger	Klamath County Sheriff

Upper Basin Subcommittee of the Klamath Provincial Advisory Committee

<u>Name</u>	<u>Agency Represented or PAC Role</u>
Steve Lewis	U.S. Fish And Wildlife Service
Chuck Graham	U.S. Forest Service
Teri Raml	Bureau Of Land Management
Chuck Lundy	National Park Service
Bob Davis	Bureau of Reclamation
Bill Hunt	State Government Representative, Oregon Department of Forestry
Steve West	County Government, Klamath County Commissioner
Joan Smith	County Government, Siskiyou County Supervisor
Don Gentry	Tribal Representative, Klamath Tribes
Sally Wells	Environmental Interests
Pat McMillan	Recreation/Tourism
Louis Randall	Other Interests
Alice Kilham	Other Interests

Figure B-1. River Plan and Development Process





## Appendix C – Legal Authorities

A number of Federal laws have been enacted over time to establish and define the authority of BLM to make decisions on the management and use of re-sources on public land. Following is a list of major legal authorities relevant to BLM land use planning.

**FLPMA (“Federal Land Policy and Management Act”)** of 1976, as amended, 43 U.S.C. 1701 et seq., provides the authority for BLM land use planning. Sec. 102 (a) (7) and (8) sets forth the policy of the United States concerning the management of BLM lands. Section 201 requires the Secretary of the Interior to prepare and maintain an inventory of all BLM lands and their resource and other values, giving priority to ACEC’s; and, as funding and workforce are available, to determine the boundaries of the public lands, provide signs and maps to the public, and provide inventory data to state and local governments. Section 202 (a) requires the Secretary, with public involvement, to develop, maintain, and when appropriate, revise land use plans that provide by tracts or areas for the use of the BLM lands. Section 202 (c) (9) requires that land use plans for BLM lands be consistent with Tribal plans and, to the maximum extent consistent with applicable Federal laws, with state and local plans. Section 202 (d) provides that all public lands, regardless of classification, are subject to inclusion in land use plans, and that the Secretary may modify or terminate classifications consistent with land use plans. Section 202 (f) and 309 (e) provide that Federal, state, and local governments and the public be given adequate notice and an opportunity to comment on the formulation of standards and criteria for, and to participate in, the preparation and execution of plans and programs for the management of the public lands. Section 302 (a) requires the Secretary to manage the BLM lands under the principles of multiple use and sustained yield, in accordance with, when available, land use plans developed under section 202 of FLPMA, except that where a tract of BLM lands has been dedicated to specific uses according to any other provisions of law, it shall be managed in accordance with such laws. Section 302 (b) recognizes the entry and development rights of mining claimants, while directing the Secretary to prevent unnecessary or undue degradation of the public lands.

**NEPA (“National Environment Policy Act”)** of 1969, as amended, 42 U.S.C. 4321 et seq., requires the consideration and public availability of information regarding the environmental impacts of major Federal actions significantly affecting the quality of the human environment. This includes the consideration of alternatives and mitigation of impacts.

**The “Clean Air Act” (CAA)** of 1990, as amended, 42 U.S.C. 7418, requires Federal agencies to comply with all Federal, state, and local requirements regarding the control and abatement of air pollution.

Enforcement of the *Clean Air Act* in Oregon has been delegated, by the U.S. Environmental Protection Agency (EPA), to the Oregon Department of Environmental Quality (ODEQ) - Air Quality Division. The state, in turn, is required to develop and administer air pollution prevention and control programs approved by EPA. State ambient air standards must either be the same as or more stringent than the federal NAAQS. The State of Oregon has established its own ambient air quality standards (Division 31, Oregon Administrative Rules).

California’s Smoke Management Program addresses potentially harmful smoke impacts from agricultural, forest and rangeland management burning operations. The legal basis of the program is found in the *Smoke Management Guidelines for Agricultural and Prescribed Burning* (California, 2001) adopted by the California Air Resources Board at its meeting on March 23, 2000. These Guidelines were filed with the Secretary of State and became effective on March 14, 2001. The California Air Resources Board and the State’s 35 air districts are responsible for administration of the program.

**The “Clean Water Act”** (CWA) of 1987, as amended, 33 U.S.C. 1251, establishes objectives to restore and maintain the chemical, physical, and biological integrity of the Nation’s water.

The entire Klamath River is listed as “water quality-limited” in accordance with Section 303(d) of the Clean Water Act. It has been listed due to the impacts of nutrients and elevated stream temperatures on beneficial uses such as threatened and endangered fisheries. For each of the waterbodies listed as “water quality-limited” the appropriate State agency (Oregon Department of Environmental Quality and California Regional Water Quality Control Board) or in some specific cases the Environmental Protection Agency (EPA), will develop Total Maximum Daily Loads (TMDLs). TMDLs are quantitative assessments of the sources of pollutants and allocations of those pollutants which are established in order to reduce pollution to levels that achieve water quality standards.

**The “Federal Water Pollution Control Act,”** 33 U.S.C. 1323, requires the Federal land manager to comply with all Federal, state, and local requirements, administrative authority, process, and sanctions regarding the control and abatement of water pollution in the same manner and to the same extent as any nongovernmental entity.

**The “Safe Drinking Water Act,”** 42 U.S.C. 201, is designed to make the Nation’s waters “drinkable” as well as “swimmable.” Amendments in 1996 establish a direct connection between safe drinking water and watershed protection and management.

**The “Endangered Species Act”** of 1973, as amended, 16 U.S.C. 1531 et seq.: Provides a means whereby the ecosystems upon which T&E species depend may be conserved and to provide a program for the conservation of such T&E species (section 1531 (b), Purposes). Requires all Federal agencies to seek to conserve T&E species and utilize applicable authorities in furtherance of the purposes of the “Endangered Species Act” (Sec. 1531 (c) (1), Policy). Requires all Federal agencies to avoid jeopardizing the continued existence of any species that is listed or proposed for listing as T&E or destroying or adversely modifying its designated or proposed critical habitat (Sec. 1536 (a), Interagency Cooperation). Requires all Federal agencies to consult (or confer) in accordance with section 7 of the “Endangered Species Act” with the Secretary of the Interior, through the USFWS and/or the National Marine Fisheries Service, to ensure that any Federal action (including land use plans) or activity is not likely to jeopardize the continued existence of any species listed or proposed to be listed under the provisions of the “Endangered Species Act,” or result in the destruction or adverse modification of designated or proposed critical habitat (Sec. 1536 (a), Interagency Cooperation, and 50 CFR 402).

**The “Wild and Scenic Rivers Act,”** as amended, 16 U.S.C. 1271 et seq., requires the Federal land management agencies to identify potential river systems and then study them for potential designation as wild, scenic, or recreational rivers.

**The “Wilderness Act,”** as amended, 16 U.S.C. 1131 et seq., authorizes the President to make recommendations to the Congress for Federal lands to be set aside for preservation as wilderness.

**The “Antiquities Act”** of 1906, 16 U.S.C. 431-433, protects cultural resources on Federal lands and authorizes the President to designate national monuments on Federal lands.

**The “National Historic Preservation Act,”** as amended, 16 U.S.C. 470, expands protection of historic and archaeological properties to include those of national, state, and local significance and directs Federal agencies to consider the effects of proposed actions on properties eligible for or included in the “National Register of Historic Places” (NRHP).

**The “American Indian Religious Freedom Act”** of 1978, 42 U.S.C. 1996, establishes a national policy to protect and preserve the right of American Indians to exercise traditional Indian religious beliefs or practices.



**The “Recreation and Public Purposes Act”** of 1926, as amended, 43 U.S.C. 869 et seq., authorizes the Secretary of the Interior to lease or convey BLM lands for recreational and public purposes under specified conditions.

**The “Surface Mining Control and Reclamation Act”** of 1977, 30 U.S.C. 1201 et seq., requires application of unsuitability criteria prior to coal leasing and also to proposed mining operations for minerals or mineral materials other than coal.

**The “Mineral Leasing Act”** of 1920, as amended, 30 U.S.C. 181 et seq., authorizes the development and conservation of oil and gas resources.

**The “Onshore Oil and Gas Leasing Reform Act”** of 1987, 30 U.S.C. 181 et seq., provides: Potential oil and gas resources be adequately addressed in planning documents; The social, economic, and environmental consequences of exploration and development of oil and gas resources be determined; and Any stipulations to be applied to oil and gas leases be clearly identified.

**The “General Mining Law”** of 1872, as amended, 30 U.S.C. 21 et seq., allows the location, use, and patenting of mining claims on sites on public domain lands of the United States.

**The Mining and Mineral Policy Act** of 1970, 30 U.S.C. 21a, establishes a policy of fostering development of economically stable mining and minerals industries, their orderly and economic development, and studying methods for disposal of waste and reclamation.

**The “Taylor Grazing Act”** of 1934, 43 U.S.C. 315, “[T]he Secretary of the Interior is authorized, in his discretion, by order to establish grazing districts or additions thereto... of vacant unappropriated and unreserved lands from any part of the public domain...which in his opinion are chiefly valuable for grazing and raising forage crops[.]...” The Act also provides for the classification of lands for particular uses.

**The “Public Rangelands Improvement Act”**(PRIA) of 1978, 43 U.S.C. 1901, provides that the public rangelands be managed so that they become as productive as feasible in accordance with management objectives and the land use planning process established pursuant to 43 U.S.C. 1712.

**Executive Order 12898** (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations), 49 *Federal Register* 7629 (1994), requires that each Federal agency consider the impacts of its programs on minority populations and low income populations.

**Executive Order 13007** (Indian Sacred Sites), 61 Fed. Reg. 26771 (1996), requires Federal agencies to the extent practicable, permitted by law, and not clearly inconsistent with essential agency functions to: Accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners; and avoid adversely affecting the physical integrity of such sacred sites.

**Executive Order 13084** (Consultation and Coordination with Indian Tribal Governments) provides, in part, that each Federal agency shall establish regular and meaningful consultation and collaboration with Indian Tribal governments in the development of regulatory practices on Federal matters that significantly or uniquely affects their communities.

**Executive Order 13112** (Invasive Species) provides that no Federal agency shall authorize, fund or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species unless, pursuant to guidelines that it has prescribed, the agency has determined and made public its determination that the benefits of such actions clearly outweigh the potential harm caused by invasive species; and that all feasible and prudent measures to minimize risk or harm will be taken in conjunction with the actions.

**Executive Order 13212** provides that all decisions made by the Bureau of Land Management (BLM) will take into consideration adverse impacts on the President's National Energy Policy. This directive provides interim supplemental guidance and a delegation of authority regarding all applicable BLM decision-making documents in Oregon and Washington.

**Secretarial Order 3175** (incorporated into the Departmental Manual at 512 DM 2) requires that if Department of the Interior (DOI) agency actions might impact Indian trust resources, the agency explicitly address those potential impacts in planning and decision documents, and the agency consult with the Tribal government whose trust resources are potentially affected by the Federal action.

**Secretarial Order 3206** (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the "Endangered Species Act") requires DOI agencies to consult with Indian Tribes when agency actions to protect a listed species, as a result of compliance with "Endangered Species Act," affect or may affect of Indian lands, Tribal trust resources, or the exercise of American Indian Tribal rights.

## Appendix D – Existing Resource Management Plan Direction

The river corridor is located within portions of two Bureau of Land Management (BLM) resource areas. Land north of the California-Oregon border is administered by the Klamath Falls Resource Area, and land south of the California-Oregon border is administered by the Redding Resource Area. Management direction for each of the applicable resource management plans will apply to specific portions of the planning area. For a detailed review of these management documents, refer to:

- Klamath Falls Resource Area Record of Decision and Resource Management Plan (1995)
- Redding Resource Management Plan and Record of Decision (1993)

The 1994 “Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl” (also known as the ROD — for the Northwest Forest Plan [NFP]) amended the 1993 Redding plan to include new land allocations. The Klamath Falls resource area plan was written after the ROD was issued and therefore incorporates direction from the NFP.

In addition, the State of Oregon has management responsibility within the river corridor on both BLM administered land and private land. A discussion of management responsibilities is also provided in this section.

### Klamath Falls Resource Area Resource Management Plan (1995)

The Klamath Falls Resource Area Resource Management Plan provides:

- Management direction applicable to all land use allocations and resource programs,
- Management direction for specific land use allocations, and
- Management direction specific to resource programs.

#### **Management Direction Applicable To All Land Use Allocations And Resource Programs**

Activities planned within the western part of the resource area must implement direction spelled out in the “*Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl (ROD)*” and the “*Record of Decision for Amendment to the Survey and Manage, Protection Buffer, and Other Mitigating Measures Standards and Guidelines*” (S/M ROD). Specifically, proponents need to implement survey and manage provisions, and provide protection buffers for specific species.

#### **Management Direction For Specific Land Use Allocations**

##### ***Riparian Reserves***

A significant role of the Amendments in the ROD was implementation of the Aquatic Conservation Strategy (ACS). Included in the ACS are four key elements: 1) managing riparian reserves, 2) managing key watersheds, 3) completing watershed analysis and 4) performing watershed restoration.

Riparian reserves were identified in the Klamath Falls RMP as a major land use allocation. Riparian reserves are defined as lands along streams and unstable and potentially unstable areas where specific standards and guidelines apply to most all potential land uses. This can further be described as covering the portions of a watershed required for maintaining hydrologic, geomorphic, and ecologic processes that directly affect standing and flowing water bodies such as lakes and ponds, wetlands, streams, stream processes, and fish habitats. The objectives of riparian reserves are to maintain or enhance riparian areas, wildlife and fisheries habitat, and water quality by emphasizing streamside and wetland management. The width of the riparian reserve along the river is approximately 300 feet each side of the high water mark.

##### ***Key Watersheds***

An important component of the ACS is management of Key watersheds. This is a management tool, not a land allocation. Spencer Creek, which drains into J.C. Boyle Reservoir, was identified as a Tier 1 watershed. Tier 1 watersheds were selected for directly contributing to at-risk anadromous salmonid, bull trout and resident fish conservation. Specific recommendations from the Spencer Creek Watershed Analysis, may affect the conditioning of

the FERC license. Jenny Creek is also identified as a Tier 1 Key watershed but is mostly included in the Medford and Redding Resource area so is discussed under management direction for those areas.

#### ***Late-Successional/District Designated Reserves (DDR)***

Within the Klamath Falls Resource Area there are no specific late-Successional Reserves (LSRs), however, through direction in the NFP a number of Late-Successional/District Designated Reserves, have been identified. The Topsy DDR is directly adjacent to the river drainage within Segment two. Operation and relicensing of PacifiCorp's facilities could affect this DDR depending on plans for managing roads (Topsy Road) and powerlines.

#### ***Matrix Lands (General Forest Management Areas)***

Those lands within the ROD that are not in one of the other six categories are called Matrix lands. These are the areas where most of the timber harvest occurs, although Matrix lands also include non-forest areas, and forest areas unsuitable for timber production. In the relicensing project, Matrix lands could be affected by road use and powerline management. The Klamath River canyon is managed as Matrix, but it has been identified as an Area of Critical Environmental Concern. (See Special Areas).

#### ***Matrix (Late-Successional/District Designated Reserve Buffers)***

Some areas in the west side Matrix that surround Late-Successional/District Designated Reserves, are designated as buffers. Most of these special restriction areas are in existing old growth stands. These buffers could be affected similarly to the DDRs mentioned above.

#### **Management Direction Specific To Resource Programs**

The Klamath Falls Resource Management Plan (KFRMP) provides direction for 26 resource programs and activities. Only that direction potentially applicable to FERC relicensing will be mentioned here.

##### ***Water and Soils (KFRMP p. 28-31).***

1. See management direction for riparian reserves and Key watersheds
2. Comply with state water quality requirements.
3. Comply with state laws and regulations pertaining to the beneficial uses identified by the states and any applicable water quality standards that have been established.
4. Design management practices to comply with Oregon's Antidegradation Policy.
5. Ensure consistency of management activities with the Oregon Water Management Program (Oregon Administrative Rule 340-41).
6. Perform a watershed analysis to provide the mechanism for consideration, incorporation and implementation of the above into land and water resource management planning.
7. Permit no degradation of water quality if it will interfere with or become injurious to the established beneficial uses of water within those segments of a river designated under the National Wild and Scenic Rivers Act.
8. Protect Floodplains and wetlands in accordance with Executive Orders 11988 and 11990.
9. Follow a four-tier approach for land and resource management: regional, physiographic or river basin, watershed and project level. Under this approach, analysis starts at the watershed level.
10. Evaluate proposed projects for their cumulative effects on water quality, runoff, and stream channel conditions.
11. Manage riparian-wetland areas to protect, maintain, or improve riparian habitat for wildlife and native plant diversity.
12. Achieve riparian-wetland improvement and maintenance objectives through the management of existing uses, wherever feasible.
13. Prescribe management or riparian-wetland values based on site-specific characteristics and settings.
14. Include corrective measures, such as construction of erosion control structures, and control or mitigate activities that may contribute to soil erosion and degradation of watershed condition.

##### ***Wildlife (KFRMP p. 31-34)***

1. Buffer special habitats from surface disturbance if necessary to protect primary values.
2. Provide a buffer around known and future nest sites of protected species.

##### ***Fish Habitat (KFRMP p. 35-36)***

1. Develop a coordinated recreation management plan to include tributaries of the Jenny Creek watershed.
2. Block up ownership when possible on lands with fish bearing streams.
3. Meet Aquatic Conservation Strategy objectives.

4. Maintain or enhance the fisheries potential of streams and other waters consistent with BLM's Fish and Wildlife 2000 Plan, the Bring Back the Natives initiative, and other nationwide initiatives.
5. Promote the rehabilitation and protection of fish stocks at risk and their habitat.
6. Propose fish habitat enhancement projects for Rainbow and Redband Trout.
7. Use the watershed analysis process to address at-risk fish species and stocks and their habitat or individual watersheds. Where appropriate, fish habitat enhancement opportunities will be identified through this process or through coordinated resource management plans.
8. Rehabilitate streams and other waters to enhance natural populations of resident fish.
9. Cooperate with federal, tribal and state wildlife management agencies to identify and eliminate impacts associated with habitat manipulation, fish stocking, harvest, and poaching that threaten the continued existence and distribution of native fish stocks inhabiting federal lands.
10. Identify instream flows needed to maintain riparian resources, channel conditions, and fish passage.
11. Protect, manage, and conserve federal listed and proposed species and their habitats to achieve their recovery in compliance with the Endangered Species Act, approved recovery plans, and Bureau special status species policies.
12. Manage for the conservation of federal candidate and Bureau sensitive species and their habitats so as not to contribute to the need to list and recover the species.
13. Manage for the conservation of state listed species and their habitats so as not to contribute to the need to list and recover the species.

*Special Status Species (KFRMP P. 36-40)*

1. Consult/conference with the U.S. Fish and Wildlife Service or National Marine Fisheries Service for any proposed action, which may effect federally listed or proposed species or their critical or essential habitat. Based on the results of consultation/conferencing, modify, relocate, or abandon the proposed action.
2. Coordinate with the U.S. Fish and Wildlife Service, National Marine Fisheries Service, and other appropriate agencies and organizations and jointly endeavor to recover federal listed and proposed plant and animal species and their habitats.
3. Where appropriate opportunities exist, acquire land to contribute to recovery, reduce the need to list, or enhance special status species habitat.
4. Monitor and manage habitats of federally listed or proposed threatened or endangered species as required by law. Prior to any vegetation or ground manipulation, or any disposal of BLM-administered land, conduct a review of the affected site(s) for such plants or animals.
5. For bald eagles - Restrict new roads and other management activities within 1/2 mile of existing and potential nest sites. Protect potential habitat in cliff areas of upper Klamath River Canyon.
6. For Peregrine Falcon - Provide a buffer of up to 30 acres around known and future sites; survey for presence in potential nesting habitat and cooperate with the Oregon Department of Fish and Wildlife to reintroduce peregrines into the Klamath River Canyon.
7. For Townsend's Big-eared Bat (Federal Candidate Category 2)
  - When available, obtain through exchange or other mutual agreement private lands that support bat populations or contain potential habitat. Continue the Salt Caves seasonal habitat closure from May 1 to September 15.
  - Buffer current and future use sites up to 20 acres. Restrict management activities within 1/4 mile of occupied sites.
  - Conduct an inventory of Townsend's big-eared bat populations, minimize detrimental human disturbance in habitat used by the bat. As opportunities arise, obtain through exchange or other mutual agreement, private lands with habitat that support big-eared bat populations or have the potential for use by the bat.

*Special Areas (KFRMP p. 31-42)*

1. Develop site-specific management plans for new special areas as needed. Protect resource values in new areas pending completion of management plans. Management plans will address other possible action such as land acquisitions, use of prescribed fire, and interpretation.
2. Provide the following management for the Upper Klamath River — 4,690 acres, 11 miles of the Klamath River canyon from rim to rim extending from J.C. Boyle powerhouse to the Oregon-California State line:
  - Maintain, protect, or restore historic, cultural, scenic, fisheries, wildlife populations and habitat. Not available for planned timber harvest;
  - limit off-highway vehicle use to designated roads;
  - no developments allowed to enhance the potential for grazing;
  - mineral leasing subject to no surface occupancy,

- not available for hydroelectric development.
- Manage area for semi-primitive motorized recreation opportunities.

*Cultural Resources Including American Indian Values* (KFRMP p. 43)

1. Identify cultural resource localities and manage them for public, scientific, and cultural heritage purposes.
2. Conserve and protect designated cultural resources for future generations.
3. Identify and evaluate Native American traditional use areas requiring protection and management during watershed analysis or site-specific planning.
4. Evaluate cultural resource sites to determine their potential for contributing to public, cultural heritage, and/or scientific purposes. Evaluate the Klamath River Canyon and lands on Bryant Mountain for nomination to the National Register of Historic Places as Archeological Districts.
5. Address the management of cultural resources through watershed analyses and project plans.
6. Develop partnerships with local American Indian tribes and other interested parties to accomplish cultural resource objectives.
7. Take appropriate law enforcement or other actions when necessary to protect cultural resources. (Such actions may include physical protection measures such as riprapping and barrier installations to reduce deterioration.)
8. Consider acquiring significant cultural resource properties for public, cultural heritage, and scientific purposes.

*Visual Resources* (KFRMP p. 43-44)

1. Manage all BLM-administered land to meet the following visual objectives for Visual Resource Management Class A areas: retain the existing character of landscapes.
  - Visual Resource Management Class A: All BLM lands within 1/4 mile of Topsy, Surveyor, and Gerber developed recreation sites, the Pacific Crest National Scenic Trail, and Spencer Creek. Also, the Klamath River Complex special recreation management area, Miller Creek Canyon, the upper Klamath Lake watershed, state scenic waterways and rivers designated Scenic under the National Wild and Scenic Rivers Act will be managed as Visual Resource Management Class A.
2. Manage Visual Resource Management Class A lands for low levels of change to the characteristic landscape. Management activities may be seen but should not attract the attention of the casual observer. Changes should repeat the basic elements of form, line, color, texture, and scale found in the predominant natural features of the characteristic landscape.

*Wild and Scenic Rivers* (KFRMP p. 45)

1. Manage designated and suitable segments of the National Wild and Scenic Rivers System by protecting their outstandingly remarkable values. Maintain and enhance the natural integrity of river-related values in designated and suitable river areas.
2. Provide the following types of interim protection from the John C. Boyle Powerhouse to the Oregon-California state line on the upper Klamath River until a river management plan has been completed; exclude timber harvest in the Riparian Reserve, provide Visual Resource Management Class A management in the corridor, and protect the free-flowing values and identified outstandingly remarkable values (recreation, scenic, fish, wildlife, prehistoric, and historic resources, and its value as a Native American traditional use area.).

*Socioeconomic Conditions* (KFRMP p. 46-47)

1. Contribute to local, state, national, and international economies through sustainable use of BLM-administrative lands and resources and use of innovative contracting and other implementation strategies.
2. Provide amenities (for example, recreation facilities, protected special areas, and high quality fisheries) that enhance communities as places to live, work, and visit.
3. Improve viewing opportunities for watchable wildlife in the Gerber block area, Klamath River Canyon, Topsy recreation site, and other sites as they arise.

*Recreation* (KFRMP p. 47-52)

1. Provide a wide range of developed and dispersed recreation opportunities that contribute to meeting projected recreation demand within the planning area.
2. Manage scenic, natural and cultural resources to enhance visitor recreation experience expectations and satisfy public land users.
3. Support locally-sponsored tourism initiatives and community economic strategies by providing recreation projects and programs that benefit both short- and long-term implementation. Continue participation in multi-agency recreation program (public and private) to coordinate and promote recreational development and tourism.



4. Manage off-highway vehicle use on BLM-administered land to protect natural resources, provide visitor safety, and minimize conflicts among various users.
5. Enhance recreation opportunities provided by existing and proposed watchable wildlife areas and national backcountry byways.
6. Continue to provide non-motorized recreation opportunities and create additional opportunities where consistent with other management objectives.
7. Manage special and extensive recreation management area in a manner consistent with the BLM's Recreation 2000 Implementation Plan and Oregon-Washington Public Lands Recreation initiative.
8. Provide additional informational, educational and recreational opportunities to enhance visitors' experiences, and increase their knowledge of the use and protection of natural resources, the BLM's land management role, and the responsibility of visitors to public lands. Examples of opportunities could include development of natural multipurpose trails in the Klamath River Complex Special Recreation Management Area.
9. Continue to operate and maintain developed and semi-developed recreation sites and developed trail as listed below:
  - Klamath River BLM campgrounds
  - Klamath River edge trail
10. Designated developed recreation sites a fire suppression areas (intensive) and fire fuels management areas. These designations will reduce fire hazards and protect investments. Restriction on fire suppression equipment and activities or minimum impact methods will be required in the following recreation sites and areas: Klamath River Canyon.
11. Manage timber within developed recreation sites for purposes of removing pr topping Hazard tress, providing space for additional facilities and activity areas and providing desired regeneration of the forest canopy.
12. In addition to the 15 developed and semi-developed sites, maintain potential for recreation development in the 35 other sites and 18 other trail locations. Develop potential sites and trails as finding and/or recreation partnerships become available and if development is constant with other land use objectives and allocations. Maintain or protect the recreation objectives for development of potential sites and trails by using and/or modifying the silvicultural treatments and harvest designs discussed in the Timber Section. Identify site and trial objectives and issues during watershed analysis or other activity level planning.
13. Pursue mineral withdrawals for existing developed recreation sites and for proposed recreation sites when development is approved.
14. Continue to manage and maintain the following existing special recreation management areas:
  - Klamath River Complex Special Recreation Management Area - 7,460 acres will continue to be managed for semi-primitive motorized recreation objectives. Manage the special recreation management area to emphasize whitewater boating, fishing, and camping along the upper Klamath River. Improve scouting trails for the Caldera and Hell's Corner rapids. Manage and maintain Topsy recreation site with camping units for overnight and day use visitors; boat ramp; the rafting put0in, and several primitive camping sites along Klamath River. Continue to follow the cooperative management agreement with the Pacific Power and Light Company for coordinated recreation trail and facility development. Nominated for designation Topsy Road to the National Back Country Byway System. Maintain the Klamath River edge trail for non-motorized use.
  - Evaluate and update the Klamath River Complex Special Recreation Management Area recreation area management plan. Provide for safe, approved, and developed group campsites. Improve and provide barrier-free access at the Topsy recreation site and BLM campground in the Klamath River Canyon. Pursue development of a cooperative management agreement with Klamath and Siskiyou counties to provide minimum annual maintenance on the Topsy Road. Pursue the development of additional nature or multipurpose trails and an interpretive facility at the powerhouse site.
15. Designate the majority of BLM-administrated land limited to off-highway vehicle use.
16. Off- highway vehicle use will be limited to designated roads and trails in the following sires/areas:
  - Klamath River Canyon area of critical environmental concern.
17. Off-highway vehicle use will be limited to existing roads and trails in the following sites/areas:
  - Lands south of Highway 66, outside of the Klamath River Canon area of critical environmental concern;
  - Topsy recreation site
18. Nominate for designation and facilitate the use of the Topsy Road for a new National Back Country Byways. Develop interpretive signs, vehicle parking areas, interpretive brochures, etc. for the Topsy Road Back Country Byway.
19. Design new recreational facilities within Riparian reserves, including trails and dispersed sites, so as not to prevent meeting Aquatic Conservation Strategy objectives. Construction of these facilities should not prevent future

attainment of these objectives. For existing recreation facilities within Riparian Reserves, evaluate and mitigate impacts to ensure that these do not prevent, and to the extent practicable contribute to, attainment of Aquatic Conservation Strategy objectives.

20. Adjust dispersed and developed recreation practices that retard or prevent attainment of Aquatic Conservation Strategy Objectives. Where adjustment measures such as education, use limitations, traffic control devices, increased maintenance, relocation of facilities, and/or specific site closures are not effective, eliminate the practice or occupancy.

*Special Products (in Late-Successional/District Designated Reserves) (KFRMP p. 57)*

1. Permit fuelwood gathering only in existing cull decks, in areas where green trees are marked by silviculturists for thinning, in areas where blowdown is blocking roads, and in recently harvested timber sale units where down material will impede scheduled post-sale activities or pose an unacceptable risk of future large scale disturbances. In all cases, these activities will comply with management actions/directions for Late-Successional/District Designated Reserves.

*Land Tenure Adjustments (KFRMP p. 64-65)*

1. Meet the following objectives for Zone 1: generally, retain these lands under BLM administration.
2. Manage newly acquired lands for the purpose for which they are acquired or consistent with the management objectives for adjacent BLM administered lands. If lands with unique or fragile resource values are acquired, protect those values until the next plan revision.
3. Maintain or increase public land holdings in Zone 1 by retaining public lands and acquiring non-federal lands with high public resource values. The primary mode of acquisition will be through exchange of BLM-administered lands in Zones 2 and 3. Utilize purchases and donations if exchange is not feasible.
4. Consult with county governments prior to any land exchange.
5. Minimize impact on local tax base by emphasizing exchanges rather than fee purchase.
6. Make exchanges to enhance public resource values and/or improve land patterns and management capabilities of both private and BLM-administered land within the planning area by consolidation ownership and reducing the potential for land use conflict.
7. Use land acquisition, exchange, and conservation easements to meet Aquatic Conservation Strategy objectives and facilitate restoration of fish stocks and other species at risk of extinction.

*Rights-of-way (KFRMP p. 66-67)*

1. Continue to make BLM-administered lands available for needed right-of-way where consistent with local comprehensive plans, Oregon statewide planning goals and rules, and the Exclusion and avoidance areas identified in this Resource Management Plan.
2. Ensure that all right-of-way for hydroelectric development are consistent with the Northwest Power Planning Council guidance, which recommends prohibiting future hydroelectric development on certain rivers and streams with significant fisheries and wildlife values.
3. Where consistent with local comprehensive plans and Oregon's statewide planning goals and rules, BLM-administered land will continue to be available for needed right-of-way. Utility/transportation routes (for electric transmission, as distinguished from electricity distribution or facilities; pipelines 10 inches in diameter or larger; significant canals, ditches and conduits; railroad; communication lines for interstate use; federal and state highways; and major county roads) will be confined to existing and other previously designated corridor.
4. With the exceptions of buried lines in rights-of-way of existing roads, avoid locating rights-of-way in:
  - Recreation Sites (existing and proposed)
  - Areas of Critical Environmental Concern (Except research natural areas)
  - Scenic and Recreational Rivers (suitable)
  - Sensitive Species Habitat
  - Visual Resource Management Class II Areas
  - Late-Successional/District Designated Reserves
  - Late-Successional/District Designated Reserves Buffers
5. Remove hazard trees along utility rights-of-way and in other developed areas.
6. Encourage location of major new right-of-way projects in existing transportation routes and other previously designated corridors.

*Access (KFRMP p. 68)*

1. Acquire access to Zone 1 and large blocks of Zone 2 lands when appropriate to manage the resources found there, by obtaining easements, entering into new reciprocal right-of-way agreements. Condemnation for access will be pursued when necessary.

*Roads (KFRMP p. 71-72)*

1. Follow best management practices (see Appendix D) for water quality and soil productivity to mitigate adverse effects on soils, water quality, fish, and riparian-wetland habitat during road construction and maintenance.
2. Specifically address, either in the road management plan or in a watershed analysis, stabilizing existing roads located in drainages, watersheds with water quality limited streams, and or other parts of the resource area where soil/water quality problems are known to exist.

*Noxious Weeds (KFRMP p. 74)*

1. Use control methods which do not retard or prevent attainment of Aquatic Conservation Strategy Objectives.

*Fire/Fuels Management (KFRMP p. 75)*

1. Provide appropriate fire suppression responses to wildfires that will help meet resource management objectives and minimize the risk of large-scale, high intensity wildfires.
2. Respond to all wildfires by taking appropriate suppression actions. In most cases, responses will consist of aggressive initial attack to extinguish fires at the smallest size possible.

## **Redding Resource Management Plan (1993)**

The Redding Resource Management Plan provides “Management Guidance” beginning on page 13. This guidance consists of discretionary and non-discretionary procedures followed by the BLM. This information is provided for the entire resource area. Resource Area management direction is provided in two parts, “Management Area Direction” and “Resource Specific Direction”. Management Area Direction covers the Klamath Management Area, which includes most of the northern portion of the Redding Resource Area. There is also Management Area Direction for the smaller Upper Klamath River “special management area”.

Resource Specific Direction is intended to apply where specific resources or activities are present

Lastly, direction related to land allocations from the Northwest Forest Plan Amendment is included at the end of this section.

### **Management Area Direction for the Klamath Management Area**

The California portion of the planning area is within an area designated as the “Klamath Management Area”. This general management area encompasses all of the Klamath River drainage within the Redding Resource Area and approximately 25% of the total land base within the entire Redding Resource Area.

#### *I. Resource Condition Objectives*

- 1) Enhance the ability to acquire high value resource lands within the Redding Resource Area by disposal of scattered public land interests within the Klamath Management area (RRMP p. 34).
- 2) Enhance the resource management efficiency and public service mission of local, state, and Federal agencies via transfer of specific public lands from BLM (RRMP p. 34).

#### *II. Land-Use Allocations*

- 1) Transfer jurisdiction of nineteen parcels of public land encompassing approximately 3650 acres to the Shasta and Klamath National Forests. There parcels include: agricultural inspection station (T. 39N., R 1W. NW1/4 of NW1/4, Section 4), Dry Lake (T. 44 N., R. 1W., SE1/4 of SE1/4, Section 31), Goosenest (T.45 N., R.4 W., Sections 36), Willow Creek to include in spotted owl habitat conservation area(T. 43 N., R. 4 W., NE14 Section 36), Pluto Cave to enhance recreation and protect natural / cultural values (T. 43 N., R. 4 W., Section 22), Iron Dyke Mine Owl Habitat Area (t. 48 N., R. 8 W., S1/2 of SE1/4, Section 22), McGavin Peak (T. 47 N., R. 2W., Sections 4,6,8,18,0 and T. 48 N., R. 2W., Section32), and Butte Valley Land Use Project (T. 4 N., R 1 W., Sections 14 and 22).

- 2) Transfer via exchange, the Recreation and Public Purposes Act (R&PP) or cooperative agreement administrative responsibility of 80 acres within the Butte Valley Wildlife Area (T 47 N., R. 2 W., Section 28) to the California Department of Fish and Game.
- 3) Transfer via exchange, R&PP or sale to the County of Siskiyou the Handbook refuse transfer site (T. 47 N, R. 6 W., Sections 29, N1/2 of SE1/4 of NE1/4).
- 4) Transfer via R&PP or exchange to the City of Yreka, the County of Siskiyou or other qualified local agency the Humbug Gulch parcel encompassing approximately 140 acres (T. 45 N., R. 7W., Section 21). Offer for exchange to any party after two years from the approval of the Final RMP.
- 5) 1025 acres near Hawkinsville (T. 24 N., R. 7 W., Sections 2, 3, 10 and 11) are suitable for the community development purpose as a reservation for Federally recognizes Indian tribes(s). If congressional sponsorship is unavailable, offer for exchange to any party after five years from the approval of the Final RPM.
- 6) All public land interests not noted above in II A-H (1-5) are available for exchange.
- 7) The majority of the available commercial forestland would be managed as restricted.

### *III. Management Actions*

- Amend the existing river management plan for the Klamath River above Copco to reflect the Final Eligibility and Suitability Report for the Upper Klamath Wild and Scenic River Study and the recommendations or the Klamath Falls Resource [Area Resource] Management Plan (RRMP p. 36).
- Contact County of Siskiyou, City of Yreka and other qualified public agencies to acquire management responsibility of parcels noted above (RRMP p. 37).
- The upper Klamath River (above Copco) has been determined suitable for inclusion in the National Wild and Scenic Rivers System. The California segment of this corridor possesses characteristics considered appropriate for a classification as "Scenic". If the Oregon segments of the study corridor are included within the National Wild and Scenic Rivers System through the conclusive action of the U.S. Congress, then the relatively short California segment of this same river will be recommended for inclusion. This action will enhance protection of the overall corridor and provide resource management continuity by BLM in both states (RRMP p. 37).

### **Management Area Direction for the Upper Klamath River Management Area**

More specific, special management areas have been delineated for portions of the Klamath Management Area. Those related to the Klamath River include:

- Upper Klamath River – The portion of the Klamath River corridor from the California-Oregon state line to Copco Reservoir that has been determined to be suitable for "Scenic" designation within the National Wild and Scenic River System.
- Jenny Creek ACEC – This Area of Critical Environmental Concern surrounds Jenny Creek from the California-Oregon state line to Iron Gate Reservoir.
- Mid Klamath River – Along the Klamath River from Iron Gate dam to the confluence with Cottonwood Creek.
- Shasta and Klamath River Canyon – The portion of the Klamath River canyon from the confluence with Cottonwood Creek to 1.5 miles downriver of the confluence with the Shasta River.

The Upper Klamath River management area was established in order to protect the resources for which the river had been found suitable and eligible for inclusion in the Wild and Scenic Rivers system. Resource Condition Objectives and Land-Use Allocations found on pages 33 to 36 of the Redding RMP are listed below for this area.

#### *Resource Condition Objectives*

- 1) Maintain the Scenic quality of the river corridor,
- 2) Improve the condition of riparian vegetation to Class II or better,
- 3) Protect the cultural resources of the river corridor, and
- 4) Improve semi-primitive non-motorized recreation opportunities.

#### *Land-Use Allocations*

- 1) This portion of the Klamath River is considered eligible and suitable for inclusion in the National Wild and Scenic Rivers System. All public land in the corridor bounded by the northern canyon rim and within 1 mile of the normal high water along the southern bank will be managed in a manner which will not impair the outstandingly remarkable values and consistent with a preliminary classification as "Scenic".
- 2) Manage Area as Semi-Primitive Motorized.
- 3) Vehicle use is limited to designated roads and trails.

- 4) Manage area as VRM (Visual Resource Management) class II.
- 5) The river corridor is closed to livestock grazing.
- 6) Offer public lands with the river corridor for mineral leasing with no surface occupancy.
- 7) Mineral material disposals are not allowed within the river corridor.
- 8) Seek administrative transfer of four parcels totaling 520 acres from the Klamath National Forest.
- 9) Retain existing land (per Map 1 – Scott Valley and Klamath Management Areas) and acquire available unimproved lands within the area and/or develop cooperative management agreements with Pacific Power and Light or their successor(s).

### **Resource Specific Direction**

Resource Area-wide direction is applied to all lands where the specific resources or activities are present. Only the direction that appears applicable to this planning effort is provided here. Refer to the Redding Resource Management Plan (RRMP) for a more complete understanding of direction for Bureau of Land Management administered lands.

#### *Cultural Resources (RRMP p. 14)*

1. Comply with the National Historic Preservation Act. Section 106 of the Act (as implemented under 36 CFR 800 and a programmatic Memorandum of Agreement among the California Office of Historic Preservation, the President's Advisory Council on Historic Preservation and the BLM) requires identification and full consideration of any historic or archaeological sites located within a project area or on lands identified to transfer to any non-Federal entity.

#### *Fire Management (RRMP p. 15)*

1. Areas of Critical Environmental Concern, Special Recreation management Areas, Wilderness Areas, Wilderness Study Areas, Wild and Scenic River Corridors (study and designated), and certain other public lands will require modified suppression techniques to protect the known values.
2. Forest management activities within designated or study corridors of the National Wild and Scenic Rivers System would not be allowed to detract from the outstandingly remarkable values which led to their designation or determination of eligibility.

#### *Hydroelectric and Water Storage (RRMP p. 17)*

1. Potential waterpower/storage reservoir sites under a land withdrawal will continue to be managed for waterpower values. Exceptions include withdrawal for waterpower or storage on streams which become components of the National Wild and Scenic Rivers System or if public lands are transferred from Federal jurisdiction. In these instances and existing withdrawals will be recommended for revocation.

#### *Lands and Realty (RRMP p. 17-18)*

1. All land acquisitions will be through exchange, purchase or donation. Acquisitions will be from willing sellers for available unimproved property. Available unimproved property is defined in this plan as lands which are willingly offered to the BLM for acquisition and which contain improvements which represent less than 2- percent of the total value of the land.
2. If only a part of a property is identified for acquisition and the remaining part would leave the owner with an uneconomic remnant, then the BLM will acquire the entire property as required by the Uniform Relocation Assistance and Land Acquisition Policies Act of 1970 (PL 91-646, 84 Stat. 1904 Sec 301 (9)).
3. In all acquisitions the BLM will strive to gain the local support and understanding for the action, especially the support of the Board of Supervisors in the affected county.
4. All BLM administered public land not specifically identified for retention is available for other lands with higher public values (per Map 1 – Scott Valley and Klamath Management Areas).

#### *Minerals (RRMP p. 22)*

1. BLM interim management of rivers determined eligible for inclusion in the National Wild and Scenic Rivers System will necessitate that a no surface occupancy stipulation be placed on any mineral lease offered within ½ mile of these rivers. The purposes of this stipulation are to protect the outstandingly remarkable values and maintain the river classification.

#### *Recreation (RRMP p. 23)*

1. ROS prescriptions will be assigned to all public lands within special recreation management areas (SRMA) and other areas where recreation is a specific resource condition objective (e.g., Upper Klamath and Middle Klamath).



***Wild and Scenic Rivers*** (RRMP p. 26-27)

1. Forested areas on public land within designated corridors or within ½ mile of streams determined to be eligible for inclusion in the National Wild and Scenic Rivers System will be managed in a manner that will not detract from the outstandingly remarkable values which led to their designation or determination of eligibility. These forested areas will be managed under the classification of “enhancement of other resources.
2. The following synopsis provides the preliminary classification(s) for each study stream determined as eligible for inclusion in the National Wild and Scenic Rivers System.
  - Klamath River – The Klamath River above Copco Reservoir has been determined to be eligible and suitable for inclusion in the National Wild and Scenic Rivers System as SCENIC.

**Northwest Forest Plan Amendment to the Redding Resource Management Plan**

Besides the direction for the above management areas, the April 1994 “Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl” (ROD or Northwest Forest Plan) created new land allocations. Only three of those allocations (Riparian Reserves, and Matrix) are applicable in the project vicinity. The ROD provides stringent standards and guidelines that comprise a comprehensive ecosystem management strategy for the old growth resources covered in these land allocations.

***Riparian Reserves***

A significant role of the Amendments in the ROD was implementation of the Aquatic Conservation Strategy (ACS). Included in the ACS are four key elements: 1) managing riparian reserves, 2) managing key watersheds, 3) completing watershed analysis and 4) performing watershed restoration. All four of these may be necessary for FERC relicensing. Riparian reserves were identified in the Klamath Falls RMP as a major land use allocation.

Riparian Reserves are defined as lands along streams and unstable and potentially unstable areas where specific standards and guidelines apply to most all potential land uses. This can further be described as covering the portions of a watershed required for maintaining hydrologic, geomorphic, and ecologic processes that directly affect standing and flowing water bodies such as lakes and ponds, wetlands, streams, stream processes, and fish habitats. The objectives of riparian reserves are to maintain or enhance riparian areas, wildlife and fisheries habitat, and water quality by emphasizing streamside and wetland management. The width of the riparian reserve along the river is approximately 300 feet each side of the high water mark.

***Matrix Lands (General Forest Management Areas)***

Those lands within the ROD that are not in one of the other six categories are called Matrix lands. These are the areas where most of the timber harvest occurs, although Matrix lands also include non-forest areas, and forest areas unsuitable for timber production. In the relicensing project, Matrix lands could be affected by road use and powerline management.



## **Appendix E - Agreements**

Three agreements (memorandums of understanding — MOU) provide for cooperative management of the upper Klamath River area. They are as follows:

- Management of the California section is by memorandum of understanding with the BLM Redding Field Office. The KFRA manages several recreation sites and issues and monitors special recreation permits for commercial whitewater rafting along this section of the river.
- The Oregon Parks and Recreation Department is a cooperative agency in management of the river and preparation of this river management plan. A cooperative management agreement (1997) was created to help guide and support the writing of this plan, and to manage the Klamath River until a final EIS is completed.
- An additional memorandum of understanding, affirming a policy of cooperation and coordination among the BLM, landowners, and other public agencies is currently in place. This memorandum involves PacifiCorp, Oregon Department of Fish and Wildlife (ODFW), California Department of Fish and Game, Weyerhaeuser Company (as assigned to U.S. Timberlands Services Company, LLC) and the BLM, and establishes a mechanism for coordinating land management programs and planning among cooperating parties.

**MEMORANDUM OF UNDERSTANDING**

**BETWEEN**

**USDI - BUREAU OF LAND MANAGEMENT, UKIAH DISTRICT,  
REDDING RESOURCE AREA**

**USDI - BUREAU OF LAND MANAGEMENT, LAKEVIEW DISTRICT,  
KLAMATH FALLS RESOURCE AREA**

**I. PURPOSE AND JUSTIFICATION**

**A. Purpose**

This memorandum is designed to formalize and establish a working agreement for the recreation management of the Upper Klamath River Corridor because the river is located in the BLM Klamath Falls and Redding Resource Areas.

**B. Justification**

1. Improve public service to commercial recreation permittees and to recreation visitors.
2. Establish a single BLM office contact for the administration, management, and monitoring of recreational activities within the river corridor.
3. Reduce costs to the commercial recreation permittees and the federal government.

**II. RESPONSIBILITY**

The Lakeview District, Klamath Falls Resource Area will be designated the BLM office contact for the administration of special use permits, management, and monitoring of all recreational activities within the river corridor below John Boyle Dam (in Oregon) to the slack waters of Copco Reservoir (in California). The river corridor boundaries are the same as identified as the BLM river study boundary on Map 1-2 in the Final Eligibility and Suitability Report for the Upper Klamath Wild and Scenic River Study (March 1990). See attached map for the river corridor boundaries.

The Klamath Falls Resource Area will compile and report all visitor use statistics in the river corridor for the BLM Recreation Management Information System.

All maintenance of the existing facilities (excluding roads) within the river corridor will be the responsibility of the Klamath Falls Resource Area.


The Ukiah District, Redding Resource Area will continue to be the BLM office responsible for the administration of public land management actions not covered by this or other agreements (ie. land exchanges, etc.). However, the Klamath Falls Resource will be contacted to provide input on all actions that will impact recreation management in the river corridor.

This agreement will in no way supersede prior individual Resource Area management commitments, but may be used in support of their completion.


The participants will review this MOU at least every 5 years to determine its adequacy, effectiveness, and continuing need.

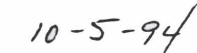
### III. COORDINATION AND COMMUNICATION

The success of the agreement is dependent on effective and timely coordination and communication between the parties. To accomplish this, the Area Managers, or their designated representatives, shall meet on a regular basis as determined by needs and circumstances. This agreement may be amended at any time upon written concurrence by both parties.

  
A. Barron Bail  
Area Manager  
Klamath Falls Resource Area

  
Date

  
Kelly F. Williams  
Area Manager (Acting),  
Redding Resource Area

  
Date

Attachment:  
Klamath River Corridor Boundary Map

COOPERATIVE MANAGEMENT AGREEMENT  
FOR THE UPPER KLAMATH RIVER  
BETWEEN  
STATE OF OREGON, PARKS AND RECREATION DEPARTMENT;  
AND  
UNITED STATES DEPARTMENT OF INTERIOR, BUREAU OF LAND MANAGEMENT,  
LAKEVIEW DISTRICT, KLAMATH FALLS RESOURCE AREA

8370 (014)

RELATIVE TO: Joint State and Federal management of the upper Klamath River in Oregon.

**I. Purpose**

This Cooperative Management Agreement provides guidance for coordination and cooperation between the Bureau of Land Management (BLM) and the State of Oregon, Parks and Recreation Department (OPRD), on joint management of the upper Klamath Wild and Scenic River. This agreement covers the segment of the upper Klamath River from Pacific Power's J. C. Boyle powerhouse to the Oregon - California border. This eleven mile segment of the Klamath River was designated as a State-administered component of the National Wild and Scenic River system pursuant to Section 2 (a)(ii) of the National Wild and Scenic River Act on September 22, 1994.

The same eleven mile segment of the upper Klamath River was designated a state scenic waterway in November 1988. Under Oregon law, OPRD has primary administrative responsibility for state scenic waterways.

The Klamath Falls Resource Area (KFRA) BLM administers Federally owned lands within the Klamath River canyon from J. C. Boyle Dam to Copco Lake, California. Management of the California section (an additional 5 miles) is by a Memorandum of Understanding (MOU) with the Redding Resource Area BLM (dated 10/05/94). An additional MOU, affirming a policy of cooperation and coordination among the BLM, landowners and other public agencies is currently in place (dated 04/25/91). The agreement is with Pacific Power and Light, Oregon Department of Fish and Wildlife, California Department of Fish and Game, Weyerhaeuser Company (as assigned to U. S. Timberlands Services Co. LLC) and the BLM. It establishes a mechanism for coordinating land management programs and planning among cooperating parties. The KFRA, BLM manages several recreation sites and issues and monitors special recreation permits for commercial whitewater rafting along this section of the river. User fees from commercial whitewater rafting companies are currently collected by the KFRA, BLM.

The Federal lands along upper Klamath River are currently managed under the KFRA Resource Management Plan (RMP) and Environmental Impact Statement (EIS) (1995). Additional guidance for management of recreation resources is contained in the Recreation Area Management Plan for the Klamath River Special Recreation Management Area (1983).

OPRD has primary administrative responsibility for Oregon Scenic Waterways and explicit authority to regulate land use. OPRD has adopted general rules of land management applicable to all scenic waterways. Specific rules are adopted for individual scenic waterways. There are currently no specific rules or guidelines set forth for the upper Klamath Scenic Waterway.

These existing management plans, rules and guidelines will continue to provide management direction for the Wild and Scenic upper Klamath River until an updated or new river management plan or set of specific rules is developed to address specific resource concerns.



## I. Objectives

The objectives of this agreement are to:

- A. Establish the basis for cooperation between Oregon Parks and Recreation Department (OPRD) and Bureau of Land Management (BLM), Klamath Falls Resource Area (KFRA) in jointly managing the Klamath State Scenic Waterway and the upper Klamath Wild and Scenic River.
- B. Define management roles for State OPRD and BLM.
- C. Identify commitments of State OPRD and BLM in abiding by this agreement.

## II. Authority to enter into the Agreement

- A. The Oregon Parks and Recreation Department enters into this agreement pursuant to ORS 190.110, 390.140 and 390.805 through 390.925.
- B. The Bureau of Land Management enters into this agreement pursuant to P.L. 97-258, September 13, 1982, 96 stat. 1004, 6305, Using Cooperative Agreements. Additional authorities include: the Wild and Scenic Rivers Act of 1968 as amended, P.L. 90-542 & P.L. 99-590; Federal Land Policy and Management Act 1976 P.L. 94-579, and Public Land Administration Act P.L. 86-644, Interior and Related Agencies Appropriations Act P.L. 102-154, Economy Act of June 30, 1932.
- C. Memorandum of Understanding for River Management Between Bureau of Land Management, USDA Forest Service and Oregon Parks and Recreation Department dated 15 July 1991.

## V. General Obligations

The parties commit to:

- A. Working together in developing any plan(s), rules or regulations for the management of the Klamath Wild and Scenic River and state scenic waterway. Nothing in this agreement shall prevent the parties from developing plans or rules that further define the management roles, responsibilities, or necessary and desired actions of the parties in managing the river.
- B. Advise and consult with each other before making decisions or taking management actions that will result in facility development, land use changes or user regulations.
- C. Exchange and share information, along with public contacts, relating to the management of the upper Klamath River.
- D. Meet on an annual basis to review and discuss proposed management actions, developing issues, user trends and problems, and administration/operational strategies.
- E. Seek management efficiencies by sharing or contributing specialized knowledge and skills, staff resources and equipment, and administrative or procedural mechanisms whenever appropriate and possible to accomplish agreed upon management tasks, goals and objectives.
- F. Jointly explore and implement, where feasible, innovative and cooperative fee structures, collection arrangements and expenditure priorities designed to optimize benefits to the users and outstandingly remarkable values of the Klamath Wild and Scenic River.

## V. Roles of the Parties

### A. The Oregon Parks and Recreation Department shall:

1. Have primary administrative authority for private lands within the upper Klamath Wild and Scenic River corridor as provided under Section 2 (a)(ii) of the Act. Administrative responsibilities would include private land issues, river planning, and development of administrative rules.  
Note: The language in the Secretary of the Interior's designation notice specifies the upper Klamath River be a "State administered component of the National Wild and Scenic River system". The language also states that the river "shall be managed by the State of Oregon at no cost to the Federal Government except for those lands currently managed by the Bureau of Land Management (BLM)".
2. Be responsible for managing the Klamath River in accordance with the requirements of the State Scenic Waterways Act, the Wild and Scenic Rivers Act, and act as the contact point for issues regarding private lands along the river.
3. Exercise its jurisdiction under the Scenic Waterways Act to discourage development on private land that conflicts with the goals and objective of the Scenic Waterways Act and the general (Oregon Administrative Rules, Ch. 736, Div. 40 SPRD) and specific land use rules for the Klamath River.
4. Coordinate with and seek the cooperation of other state agencies with special jurisdiction under the State Scenic Waterways Act or other state acts as it applies to water quality, free-flowing character, outstandingly remarkable values and other special attributes. Assist in identifying partnerships for gaining monitoring information.
5. Seek additional law enforcement funding and capabilities and assist in developing law enforcement recommendations.

### B. The Bureau of Land Management, Klamath Falls Resource Area shall:

1. Manage public lands within the upper Klamath River corridor consistent with National Wild and Scenic River and State Scenic Waterway designations and in a manner designed to protect and enhance the outstandingly remarkable resource values and special attributes in the corridor.
2. Continue to be responsible for the on-the-ground management of recreation facilities, visitors and the issuance, monitoring and fee collection for special recreation (commercial whitewater) permits.
3. Continue to address fire protection through an existing agreement with Oregon Department of Forestry. Changes to the existing policies regarding campfires and the fire closure season would be coordinated with OPRD.
4. Continue to act as the contact point for issues regarding the public lands in the canyon.

## VI. Disclaimer s

Nothing in this agreement shall:

- A. Affect the jurisdiction of the parties over their own lands.
- B. Require the parties to expend funds in violation of federal or state law or legislatively approved budgets, or contrary to commonly accepted standards of prudent fiscal management.



- C. Obligate the parties to management responsibilities not described in this agreement or specified in the Wild and Scenic Rivers Act, as amended.

/II. Approval

This agreement is approved by the parties this \_\_\_\_ day of \_\_\_\_\_, 1997. It shall remain in effect until terminated.

The Oregon Parks and Recreation Department

By Robert L. Meinen  
Robert L. Meinen, Director

The Bureau of Land Management, Klamath Falls Resource Area

By A. Barron Bail  
A. Barron Bail, Area Manager

MEMORANDUM OF UNDERSTANDING

among

PACIFIC POWER & LIGHT COMPANY  
OREGON DEPARTMENT OF FISH & WILDLIFE  
CALIFORNIA DEPARTMENT OF FISH & GAME  
WEYERHAUSER COMPANY  
and the  
BUREAU OF LAND MANAGEMENT

This memorandum of understanding (MOU) is entered into this 18th day of April, 1991, by and among the Pacific Power & Light Company, hereinafter referred to as Pacific; the Oregon Department of Fish & Wildlife, hereinafter referred to as Oregon Department; California Department of Fish & Game, hereinafter referred to as California Department; Weyerhaeuser Company, hereinafter referred to as WeyCo; and the Bureau of Land Management, hereinafter referred to as the BLM.

I. STATEMENT OF JOINT OBJECTIVES

A. Purpose

Private, state and Federal land ownership is intermingled in the vicinity of the upper Klamath River. Many of the land owners have mutual resource management concerns and responsibilities in this area. A coordinated land management process that encourages a high level of cooperation between various land owners could improve resource benefits through cost-effective actions and policies.

This MOU affirms a policy of cooperation and coordination among the cooperators concerning management of their lands along the upper Klamath River. It establishes a mechanism for coordinating land management programs and planning among the cooperating parties. It serves as a master agreement for the Cooperators that can be used to develop separately negotiated and approved amendments (task orders) to this MOU for specific management projects or actions.

B. Objectives

Objectives of the agreement are as follows:

- . Manage rangelands to maintain or improve range conditions.

- . Manage deer winter range to maintain or improve habitat.
- . Manage riparian habitats to maintain or improve fish, wildlife and scenic resources.
- . Maintain and enhance species of special concern and their habitats.
- . Maintain a wild horse population in the Pokegama Herd Use Area (HUA).
- . Maintain and enhance recreation and scenic resource values;
- . Protect and interpret archaeological resources and cultural values.

#### C. Authority

. ORS 496.138 (11) authorizes Oregon Department to enter into agreements for the development and encouragement of wildlife research and management programs and projects.

. Federal regulation 36 CFR 219.19 for public land states that "wildlife habitat shall be managed to maintain viable populations of existing native and desired non-native vertebrate species".

. BLM - Wild Horse and Burro Act, Redding Land Use Plan, Redding Resource Management Plan, Klamath Recreation Area Management Plan, Federal Land Policy and Management Act, Wild and Scenic Rivers Act.

. Pacific's environmental policy (dated June 1990) states it's dedication to maintaining it's position as a responsible cooperative member of the community it serves, and continuing to comply with all applicable Federal and state laws enacted to protect and enhance the environment.

. California Fish and Game policy and Section 1801 of California Fish and Game Code.

#### D. Benefits

Benefits of the agreement are as follows:

. To establish a process that facilitates cooperation and coordination of resource management in the upper Klamath River watershed.

. To identify and develop specific resource management projects through amendments (task orders) to the MOU.

. To provide a process for transfer of funds and exchange of services through amendments (task orders) to the MOU.

. Document current cooperation and facilities application/reporting for outside funding (challenge grant, GWEB).

#### E. Responsibilities

The Cooperators agree that:

1. Under the terms of separately negotiated and approved amendments to this MOU, tasks (amendments) shall be undertaken for coordinating and enhancing land management programs.

2. This MOU provides the framework for the initiation and implementation of future agreements among the cooperators. Such agreements will refer to this MOU which shall be the primary agreement document.

3. Coordination and enhancement of land management programs among the cooperators will be undertaken under terms of separately negotiated and approved amendments to this MOU.

4. Cooperators will work cooperatively in identification, evaluation, and management (including monitoring) of grazing lands and other owned lands with high natural and cultural values.

5. The development of automated databases related to land management, including geographical information systems, will be coordinated, where practical.

6. Consistent with authorities, access will be provided to Cooperators lands for studies and analysis for land management in mutually agreed to areas.

7. The implementation of this MOU is subject to required funds being available to appropriate parties of the MOU.

8. Nothing herein contained shall be construed as limiting or affecting in any way the delegated authority or responsibilities of the Cooperators.

9. This MOU may be modified or amended upon request of any party and the concurrence of the others. A Cooperator may terminate their participation with 60 days written notice.

10. An annual meeting will be held to discuss progress of programs under the MOU, future activities, and funding.

11. This MOU becomes effective when signed by all parties, and shall remain in effect until terminated.

AGREEMENT:

US Dept. of the Interior  
Bureau of Land Management

*Joseph M. Bellin*  
Dated: FEB 11 1991

Oregon Dept. of Fish and  
Wildlife

*Stephen L. Lewis*  
Dated: 4/2/91

Pacific Power & Light Co.

*Gary Warren*  
Dated: 4/10/91

Weyerhaeuser Company

*Jim Monfere*  
Dated: 4/18/91

California Dept. of Fish and Game

*Bruce C. Carter*  
Dated: FEB 15, 1991

US Dept. of the Interior  
Bureau of Land Management

*R. Faxon Bail*  
Dated: 4/25/91





## **Appendix F – Public Involvement Plan**

This public involvement plan displays public participation and consultation activities to provide opportunities for the public to meaningfully participate in and comment on the proposed Upper Klamath River Management Plan (CFR 43, Chapter II, 1610.2) and associated environmental impact statement. Meetings have been held to share information throughout each major step of the analysis process, including the initial scoping phase, which included identification of planning issues and alternatives, and defining the scope of analysis for alternatives to be disclosed in a draft environmental impact statement. In addition, information has been provided on a public access web site and through a public mailing. This plan would adhere to the CEQ 40 CFR, BLM Manual 1614, and Wild and Scenic River manual requirements for public participation and outreach. The list below also includes planned or proposed contacts to be made following the release of the DEIS.

### **Consultation Meetings**

Klamath Tribes Executive Committee, Chiloquin, OR (Numerous meetings and communications)  
Shasta Nation, Quartz Valley, CA (Numerous meetings and communications)  
Shasta Nation, Yreka, CA\* (Numerous meetings and communications)  
Shasta Nation, MacDoel, CA\* (Numerous meetings and communications)  
Hupa Tribe, Karuk Tribe, and Yurok Tribe  
Fish and Wildlife Service consultation, Klamath Falls, OR (Numerous meetings and communications)

### **Public Meetings/Open Houses**

Open House, Klamath Falls, OR  
Open House, Yreka, CA  
Public Meeting, Copco, CA

### **Federal Agency Coordination Meetings**

Department of the Interior, Washington, D.C.  
Klamath Provisional Advisory Committee (PAC)  
Upper Basin subcommittee of the PAC (Numerous meetings)  
Interagency Advisory Committee – Federal and State agencies (Numerous meetings)  
Redding Resource Area BLM  
Medford District BLM  
Lakeview District BLM  
Oregon State Office, BLM (Formal Briefings)  
California State Office, BLM (Informal Briefing)  
BLM State Cultural Protocol Meetings  
Klamath National Forest  
Bureau of Reclamation, Klamath Project Office

### **Governmental Meetings/Briefings**

Klamath County Commissioners (presentation)  
Siskiyou County Board of Supervisors (presentation)  
Oregon Congressional Delegation (presentation)  
California Congressional Delegation (presentation)  
Oregon State Natural Resource Advisor (presentation)  
Oregon Department of Environmental Quality (Maybe this should be under IAC above)  
California Resources Agency (presentation)

### **Informational Meetings and Communications**

Klamath/Lake/Modoc/Siskiyou Recreation Working Group (presentation)  
Klamath River Working Group of the Klamath Watershed Council (presentation)  
Southeast Oregon Resource Advisory Council (presentation)  
Northwest California Resource Advisory Council (presentation)  
Oregon Natural Desert Association

Audubon Society - Klamath Chapter, Klamath Falls, OR (presentation)  
Upper Klamath Outfitters Association, Medford, OR (presentation)  
Klamath Four Runners, Klamath Falls, OR (Informal meeting and communications)  
Service Clubs

- Klamath Basin Sunrise Rotary, Klamath Falls, OR (presentation)
- Kiwanis Club, Klamath Falls, OR (presentation)

Sierra Club - Klamath Chapter, Klamath Falls, OR (Potential)  
Oregon Natural Resources Council (Potential)  
PacifiCorp (presentation)  
U.S. Timberlands  
California Fruitgrowers Association (presentation)  
Boise Cascade (Phone Discussion)  
State of Jefferson Archaeological Meeting  
Pedaling Through the Past Public Outreach Event  
Adjacent Private Landowners (mostly phone calls)  
Various members of the public (phone calls and in BLM office)

### **Federal Register Notices and Media Contacts**

Notice of Intent  
Notice of Availability for DEIS and public meeting dates  
Notice of Availability for FEIS and public meeting dates (Planned)

### **Media Contacts**

Yreka Siskiyou Daily News (Newspaper)  
Klamath Falls Herald and News (Newspaper)  
Redding Searchlight (Newspaper) (Potential)  
Eureka, California (Newspaper) (Potential)  
Eureka Television Stations (Potential)  
Klamath Falls Television Stations (Potential)  
Medford Television Stations (Potential)  
Redding Television Stations (Potential)  
Yreka Television Stations (Potential)  
Klamath Falls Radio Stations  
Medford Radio Stations (Potential)  
Yreka Radio Stations (Potential)  
Eureka Radio Stations (Potential)

### **Other Sources of Public Information**

Lakeview District, KFRA Web Site  
River Plan Update (information letter sent to over 400 people on mailing list)

\* These groups are not part of a Federally Recognized Tribe, but have requested to be involved with the process so they have received similar information as the existing recognized tribes.

# Appendix G – Public Issue Statement Tracking

The list of scoping issues below is based upon public and agency comments received during the scoping period that closed on January 31, 2001, and other input received up until June 1, 2002. Each issue statement was reviewed to determine if it is addressed in the analysis. Other issues not listed below were previously evaluated and determined to be “beyond the scope of this analysis”. The issues below can be addressed in the analysis in one or more of the following ways:

1. Discussed under Purpose and Need or Management Direction portions of the EIS,
2. Described in the Affected Environment section of the EIS,
3. Included as an action (opportunity) to be analyzed in one or more alternative,
4. Effects described in Environmental Consequences.

<b><u>KLAMATH RIVER MANAGEMENT PLAN PUBLIC ISSUE STATEMENTS</u></b>	<b><u>HOW / WHERE ADDRESSED</u></b>
<b>WILD AND SCENIC RIVER SYSTEM AND AREA OF CRITICAL ENVIRONMENTAL CONCERN VALUES</b>	
How will the designated Scenic River Outstandingly Remarkable Values be maintained or enhanced?	Alternative design & Effects discussion
How will the designated area of critical environmental concern values be maintained or enhanced?	Alternative design & Effects discussion
<b>RECREATION FACILITIES</b>	
What are the types and numbers of existing or new recreational sites needed in the canyon?	Alternatives 1-4
No further development should occur in the canyon.	Alternative 1 (No Action)
More restrooms and campgrounds are needed.	Alternatives 2,4
A real bathroom is needed at the Freedom Site (Stateline) and Frain Ranch.	Alternatives 2,4
At Frain Ranch, a simpler vault toilet could be less costly to build and repair.	Alternatives 2,4
Keep low maintenance (semi-primitive) facilities and don't substantially upgrade facilities.	Alternatives 1,3
A parking lot at the old PPL housing site needs to be developed with a path to the put-in.	Alternatives 2,4
Don't expand recreation facilities if you can't keep existing facilities going.	Alternatives 1,3
Designated camping areas would preserve the area's ecosystem.	Alternative 3

Development should focus on adding and improving campsites. I support a minimum 100 foot non-development corridor (buffer), measured from the high-water line, for facility development.	Alternatives 2,3
The fewer facilities the better. If any other facilities are needed, limit them to porta-potties and concrete and steel barbeque pits.	Alternatives 1,3
Allow river users to utilize Access #6 as a take-out and put-in option.	Alternatives 1-4
There is a need for toilet facilities at Frain Ranch, on one side of the river or both.	Alternatives 1-4
There is room for additional campsites at the BLM Campground; those additional sites are probably needed and appropriate.	Alternatives 2,4
Toilet facilities should be maintained at the BLM CG and the Frain Ranch area in addition to the BLM “put-in and take-out.”	Alternatives 1-4
To facilitate recreational use for visitors not in a “boat”, new trails to and along the river in appropriate locations would be assets to the area. Such trails would be most useful in the canyon between the Frain Ranch area and the state line where it is largely inaccessible except via water.	Alternatives 2,4
A trail along each side of the river between Copco and HWY 66 at the Klamath River encouraging backpacking would be desirable.	Alternatives 2,4
Provide new trails for fishing access, especially in the “Bypass Reach”.	Alternatives 2,4
Don’t build new trails or roads.	Alternatives 1,3
Can plans for a Stateline boat ramp be implemented?	Alternatives 2,3,4
There may be a need for group size campsites?	Alternatives 2,4
Determine the proper management of dispersed primitive campsites.	Alternatives 1-4
Any new trail building needs consultation with Tribes.	Alternatives 1-4
Is there a need for additional signs and interpretive facilities in the canyon?	Alternatives 1-4
Determine what the appropriate level of regulatory signage is for the canyon.	Alternatives 1-4
BLM should provide an interpretive sign at the beginning and end of Topsy Road and at popular sites.	
Topsy Road and adjacent historic sites (stage stops) should be acknowledged with the appropriate signs and interpretation, including the Frain Ranch and school.	Alternatives 1-4
How will facilities (on public and private land) be maintained?	Alternatives 1-4
Recreational facilities need to be maintained.	Alternatives 1-4
The restrooms at Frain Ranch should not be locked.	Alternatives 2,3,4
Close campgrounds around old Frain Ranch (Assumed this is for dispersed camp sites)	Alternatives 2,3,4
Explain why the toilet at Frain Ranch is closed.	Affected Environment
Outfitters should pay to help maintain facilities for their customers along the river.	Affected Environment
<b>RECREATION ACTIVITIES</b>	
What is the appropriate carrying capacity for recreational uses within the river canyon?	Alternatives 1-4
Recreation use, besides whitewater rafting, needs to be monitored more closely.	Alternatives 2-4
There is more recreational use in the canyon than documented.	Alternatives 1-4
Maintain current level of commercial rafting use.	Alternative 1
Plans need to consider the needs of private boaters as well as commercial outfitters.	Alternatives 1-4
Need to assign limits with Tribal, State and other agency input.	Alternatives 1-4
There should be no restrictions on whitewater rafting.	Alternative 4

A crowded put-in doesn't necessarily mean that there is a carrying capacity problem on the river.	Alternatives 1-4
River use should be reduced or eliminated if there are not sufficient maintained toilet facilities for visitors.	Alternative 3
What recreational uses are desired and how will they be impacted by management actions?	Environmental Consequences
Fishing, Hunting, Hiking and OHV use should be allowed.	Alternatives 1-4
Minimal impact, non-consumptive recreation should be given priority over consumptive or high impact OHV or commercial uses.	Alternative 3
Foam and concentrated algae in the river degrade the recreational experience.	Affected Environment
Some recreational uses may not be compatible with this Wild and Scenic River system setting.	Alternatives 1-4
How can existing use, and potential increases in use, be managed to protect the values in the river corridor?	Alternatives 1-4
With increasing recreational use of the river, nearby recreation site use may increase as well.	Alternatives 1,2,4
Recreation use is booming, people are wanting to experience the great outdoors whether it is camping, fishing, rafting, or etc.	Alternatives 1,2,4
Rafting of the river must remain a strictly controlled activity.	Alternatives 1-4
From State Line to Copco, rafters are starting to take out at other areas on private land. This should be stopped.	Alternatives 1-4
Put-in and take-out should only be allowed at designated locations, and these can include private lands if there is an agreement and the site is maintained.	Alternative 3
Any conflicts between river-runners and other recreationists is more likely to be competition for camp sites. Adequate opportunities for dispersed camping along the river and within the canyon should minimize that problem.	Alternatives 1-4
Day trips have less impact than overnight trips.	Alternative 3
Camping is great and I would hate to see a limitation on two-day (overnight) raft trips.	Alternatives 1,2,4
Camping by non-natives should be restricted to BLM designated campsites (Protect Native American Traditional Use Areas).	Alternatives 1-4
Camping should be restricted to designated sites to reduce impacts to cultural sites.	Alternative 3
Outfitter-guides (rafters) should be required to provide toilet facilities for their customers?	Alternatives 1-4
Litter from recreational use must be tightly monitored.	Alternatives 1-4
Need to implement a <i>Pack-It-In/Pack-It-Out</i> policy for litter.	Alternatives 1-4
Need to emphasize the use of <i>Leave No Trace</i> techniques with both commercial outfitters and the general recreating public.	Alternatives 1-4
Specifically, how will OHV use be managed?	Alternatives 1-4
No OHV use should be allowed off-roads.	Alternatives 1-4
OHV (off-highway vehicle) use should not be eliminated.	Alternatives 1-4
OHV use should be strictly banned within the canyon area due to its destructive nature and abuse to house pits and ceremonial areas.	Action Eliminated
No OHV recreation should be allowed in the canyon, or maybe allow OHV recreation if a permit process to restrict use was established.	Action Eliminated
Use of ATV's and ORV's, indeed all vehicles, should be confined to maintained roads or trails to avoid damage to soil and vegetative resources and reduce harassment to wildlife and recreational users.	Alternatives 1-4
Continue to deny access to the Salt Caves area.	Alternatives 1-4

What level of patrols or BLM presence is needed to protect the resources and provide for safety of users?	Alternatives 1-4
More vigilant patrols in canyon during peak usage period, May through September.	Alternatives 2,3,4
Have law enforcement phone numbers posted.	Alternatives 1-4
The river from J.C. Boyle Powerhouse to Copco Reservoir should be kept open to the public for recreation and tourism.	Alternatives 1-4
Law enforcement personnel are to be allowed to patrol in all areas to protect the canyon and its values, and consultation with tribal patrols should be maintained for assistance in protecting cultural sites.	Alternatives 1-4
BLM needs to have a plan that encourages and facilitates enforcement, rather than a plan which inherently eludes enforcement.	Alternatives 2,3,4
The plan should stipulate that when funding is unavailable, vehicle access to these sensitive or otherwise improperly regulated areas will have to be closed.	Alternative 3
Possibly provide a joint use law enforcement officer residence.	Alternatives 2,3,4
BLM presence needs to be consistent with the objectives of the Semi-primitive Motorized Recreational Opportunity Spectrum designation in the canyon.	Alternatives 1-4
How will use of firearms be managed within the river corridor?	Alternatives 2,3,4
Restrict Firearm use.	Alternatives 2,3,4
Firearm use in the vicinity of other recreation uses in the canyon may not be compatible.	Alternatives 1-4
Do not restrict firearms.	Alternative 1
No firearm use during rafting season - May through September.	Alternatives 2,3,4
More law enforcement is needed.	Alternatives 2,3,4
Not opposed to legal hunting, but discharge of firearms seems to be random and indiscriminate and surely ruins ones enjoyment of the area.	Alternatives 2,3,4
Wildlife hunting opportunities should be maintained, but no hunting in the canyon in the summer months.	Outside Scope of Analysis
Recreational hunting can be allowed but the Shasta Council must be involved in the setting of seasons, bag limits, etc.	Outside Scope of Analysis
Eliminate and ban use of OHV, 4-wheelers, motorcycles, etc. in all areas within one mile of the canyon rim edge on both sides of the river.	Outside Scope of Analysis
People should only be permitted to carry and use firearms if they have completed Gun Safety Classes.	Outside Scope of Analysis
<b>ROADS AND ACCESS</b>	
What is the appropriate transportation system for the river corridor including roads, bridges and trails?	Alternative design
Transportation management must be directed to benefit the ecological, social and economic values in the area in a way that integrates or balances all values.	Alternatives 1-4
Consider helicopter logging and other low impact options with minimal road development to perform projects to reduce fuel loading.	Alternatives 1-4 as specified in BMPs and mitigation measures
Do not develop any more roads or make the existing roads better.	Alternative 1
No new roads are to be built.	Alternatives 2,3
New, unobtrusive roads may be appropriate to access the river, campsites or other resources.	Alternative 4



Provision of a new bridge at the old “Burned Bridge” site would be an asset to the area that would provide better seasonal access to the Frain Ranch area and provide for a loop road through the canyon facilitating the enjoyment of its scenic and historical attributes.	Alternative 4
Opportunities for other bridge replacements (i.e., J.C. Boyle dam and Stateline) should be considered.	Alternative 4
There are open and closed roads that may provide opportunities for non-motorized use.	Alternatives 1-4
The Topsy Grade should be left open for those to hike, bike, or provide access by motor vehicles.	Alternatives 1-4
Access for existing wildlife hunting opportunities should not be affected.	Alternatives 1,4
Maintain access to cultural resource gathering areas for tribal gatherers. The Tribe(s) should be contacted prior to closing roads to see if they have any concerns about road blockage.	Alternatives 1-4
Are road closures necessary to protect resource values?	Alternative design
Inappropriate and unnecessary roads should be closed and restored to natural conditions.	Alternatives 1,2,3
Using boulders and tank traps to close roads really does not work very well.	Alternatives 1,2,3
Work with user groups if plans are made to close roads.	Alternatives 1-4
In considering any road closures, please consider the impacts to PacifiCorp’s ability to access and maintain hydroelectric project facilities and transmission lines that are in place.	Alternatives 1-4
Limited closure of roads that do not provide access for recreation should occur.	Alternatives 1,2,3
Support judicious road closures along with an active program to restore old and abandoned roads to their natural state.	Alternatives 1,2,3
What road system improvements or maintenance will be needed to accommodate existing, or potential traffic increases, and to ensure safety?	Alternatives 1-4
Improve the access road to Take-out #6.	Alternatives 2,4
The two main access roads should be maintained in passable condition. Appropriate spur roads should be maintained similarly where they are useful for accessing the river or campsites.	Alternatives 2,4
Maybe slightly improve the roads to Frain Ranch and the raft launch site. Leave most of the rest of the roads in their existing conditions with little to no maintenance.	Alternatives 1,3
Extensive road improvements and on-going maintenance is needed for Topsy Road and North side river access road.	Alternatives 1-4
No paving of the existing roads.	Alternatives 1-4
The Topsy Road should be improved to stop resource damage that is presently occurring.	Alternatives 1-4
Road maintenance agreements need to be developed for roads (e.g., Topsy) that have multiple ownership or administration.	Alternatives 1-4
Topsy road, Stateline access road, and North side river road need maintained.	Alternatives 1-4
At a minimum the Topsy road should be gated and closed in winter and during wet weather.	Action Eliminated
To stop excessive soil erosion and resource damage on Topsy Road, include possible road closures during the hunting season.	Alternatives 1-4
With the improvement of existing roads in the area, response time to a fire situation could be greatly enhanced.	Effects discussion
Improve stream crossings in the Stateline and Frain Ranch areas?	Alternatives 1-4
How will access to the river’s edge be managed?	Alternatives 1-4

Access to the river should be maintained.	Alternatives 1-4
Fishing access should be maintained.	Alternatives 1-4
Fishing access should be expanded, especially on private land.	Alternatives 2,4
Access should be limited to the existing roads.	Alternatives 2,3
Adequate access and camping opportunities should be provided and maintained to support enjoyment of these resources.	Alternatives 1-4
Determine which roads should be opened for access to the river shoreline.	Alternatives 1-4
The road to Frain Ranch should be blocked at Robbers Rock.	Possibly Alternative 3
Use of roads by tribal members for cultural, religious, and ceremonial purposes must remain unrestricted. Keys to the locked gates for access to the lower river areas [private land in Segment 3] must be provided to the Shasta Nation tribal council at the earliest convenient date.	Outside Scope of Analysis
<b>CULTURAL RESOURCES/PREHISTORIC SITES</b>	
Will archaeological resources in the area be directly or indirectly affected by existing, or increased, access and use?	Effects discussion
Conflicts are occurring where recreation use is affecting cultural sites.	Alternatives 1-4
There are hundreds of Native American cultural sites, and a fair number of historical sites, along the Klamath River that should be protected.	Alternatives 1-4
There are over 115 Shasta Cultural sites within the study area. Many of the sites such as those at Frain Ranch and the State Line Takeout, are being impacted to the point of destruction.	Alternatives 1-4
The Klamath River Canyon is part of the Klamath Tribes aboriginal territory and they are concerned that sites not be impacted.	Affected Environment
Cultural sites exist in Segment 1 that should be considered in the plan.	Alternatives 1-4
Cultural sites are affected by fluctuating river flows.	Alternatives 1-4 (In Monitoring Plan)
Road access to, and camping in areas with cultural sites accelerates damage to the sites.	Alternatives 1-4
How will cultural sites be managed and protected?	Alternatives 1-4
Sites should be managed cooperatively with interested Native American Tribes.	Alternatives 1-4
There is disagreement on how different Tribes want the sites managed.	Affected Environment
There is disagreement on which Tribes currently and historically used the sites.	Affected Environment
The Klamath Tribes are only interested in protection and stabilization of sites in place.	Alternatives 1,2,4
There may be direct conflict between the Shasta and Klamath Tribes over management of cultural resources in the canyon.	Affected Environment
The Klamath Tribes are not in favor of public tours of prehistoric cultural sites in the canyon.	Alternatives 1-4 (Although No Tours are proposed)
Suggest that the Shasta and Klamath Tribes meet on cultural management issues in the canyon.	Alternatives 2,3,4
Locations of sensitive sites should be on a need-to-know basis.	Management Direction
A complete inventory of all sites on both public and private or corporate ownership land must be done (including the east side of the river between Frain Ranch and the put-in).	Alternatives 3,4
Heavily damaged sites may be strongly considered for detailed archeological study and excavation to recover what information that may yet remain to provide a more complete historical picture of past use.	Alternative 4

Cultural site protection should be higher priority than recreation use. All prehistoric sites must be protected at all costs regardless of ownership.	Alternatives 2,3
It is vital to protect and even improve cultural sites.	Alternatives 2,3,4
Protect cultural sites at all cost – purchase land where sites exist on private land.	Alternatives 2,3
The BLM should propose solutions to the private landowners and work with them to stop the destruction of cultural sites.	Alternatives 2,3,4
Plant poison oak around the Rain Rock to help prevent vandalism.	Alternative 3 (Although not proposed)
Include cultural site interpretation in the management plan.	Alternatives 2,4
Discuss the role that outfitters should or should not have in interpretation of, or “pointing out”, cultural and historic sites to their clients.	Alternatives 2,3,4
Signs should be used to educate and warn people about taking artifacts and destroying cultural sites. They need to describe the Antiquities Act and reference “penalty of law” for disturbance.	Alternatives 2,4
Place signs on fences around sites to warn people of the need to protect the sites.	Alternatives 2,4
Sites can be marked with warnings posted of the religious values to the native cultures with notices of fines for desecration.	Alternatives 2,4
On-site monitor(s) or manager(s) would be effective in protecting sites.	Alternatives 2,4
Cover sites with cloth and soil and then plant vegetation or turn into a parking lot so their presence is not obvious.	Alternatives 2,3,4
Do not publish information on cultural sites that may increase the likelihood of the general public finding the sites.	Alternatives 1-4
Create an educational program to teach respect for the sites; include lessons in grade school, local history course at Klamath Community College.	Alternatives 2,4
Not sure education will foster respect unless it is geared toward younger generations.	Alternative 3
Have a meeting between the Shasta Nation and the off-road vehicle group would help educate the guides so that they can pass on the correct information to their guests and also avoid sensitive locations.	Alternatives 2,3,4
Help protect sensitive sites. Maybe a course in local culture would be a good idea for rafting companies and other groups who use the area. Cultural resource information should be shared through a brochure, supplemented by a web page, to foster respect for the sites.	Alternatives 2,4
Tours would increase public appreciation and may lead to protection.	Alternatives 2,4
The Shasta Tribes should be amenable to sharing knowledge of some of their sites and ceremonies to selected groups.	Outside Scope of Analysis
Collecting of artifacts by rafters and other members of the public must stop.	Alternatives 1-4
There are several cultural sites within the river’s corridor from the Keno dam downstream to the Put-In for the rafters. This stretch of the river corridor is not included in your scoping plan (Segment 1 should be expanded).	Outside Scope of Analysis
The boundary of River Segment 3 should be expanded to include rim to rim (like Segment 2) for cultural resource issues.	Alternatives 2,3,4 depending on values
The site at Fishing Access #6 needs to be tested to determine their significance. This area may serve to relieve impacts on other upstream cultural sites.	Alternative 4
Cultural sites are being impacted by flooding caused by spills from the dams.	Alternatives 1-4
<b>TRADITIONAL USES</b>	

How will traditional cultural uses of the upper Klamath River management area be affected by the proposed activities?	Alternatives 1-4
Keep open to Native Americans.	Alternatives 1-4
Allowance of subsistence hunting and gathering by tribal members is imperative.	Outside Scope of Analysis
We have long practiced our traditional hunting, fishing and gathering activities utilizing the methods of our ancestors and we fully intend on continuing this practice.	Affected Environment
The canyon should be open to traditional uses but other uses should not be curtailed or eliminated.	Alternatives 1,2,4
Native Americans can post the time when they hold their ceremonies and alert public users to the fact and either redirect use or limit it so that the ceremonies would not be disturbed.	Outside Scope of Analysis
Allow uses to continue: religion, hunt, fish, gather/teach. (Religion/Gathering)	Alternatives 1-4
Areas of traditional tribal use for cultural and ceremonial activities should be identified and have limited or reduced access to non-tribal members.	Alternatives 1-4 (reduced access in Alt 3)
Access to the prehistoric hunting areas must be limited to foot travel only: no horses, bikes, ATV's, OHV's, etc.	Alternative 3 (or Outside Scope of Analysis)
The Shasta Nation is interested in a modest expansion of the traditional subsistence used by the tribal members to provide food and materials for traditional cultural use.	Outside Scope of Analysis
Use of wildlife resources by tribal members shall be tightly controlled and strictly enforced. Anti-poaching patrols will be added.	Outside Scope of Analysis
Expand traditional tribal cultural activities to educate and improve communication and cooperation for joint management of the Klamath River system between the Shasta Nation and BLM.	Alternatives 1-4
The boundary of river Segment 2 should be expanded to include the lithisol meadows in Section 1 on USGS map. These were traditional root gathering areas.	Outside Scope of Analysis
Basketry materials in riparian areas along the river are affected by upstream management.	Outside Scope of Analysis
Flood releases are also impacting other resources such as riparian areas containing basketry materials.	Outside Scope of Analysis
Fish harvest is adversely affected by water flows.	Outside Scope of Analysis
The cultural section needs to be broadened to include all traditional lifeways. For example, fish are central to ceremonies, so if the fish are affected, tribal ceremonies are affected.	Affected Environment
	Outside Scope of Analysis
Allow the expanded use of wildlife and fish by Tribal members.	
The published interest and historic use of the Klamath River is overstated and exaggerated by the Klamath Tribes.	Outside Scope of Analysis
May necessitate a small reduction in the late archery and controlled limited entry seasons by the general public. Proposed tribal use will exceed current season lengths but not the overall harvest levels to insure healthy populations.	Outside Scope of Analysis
<b>HISTORIC SITES</b>	
How will historic sites/structures be managed?	Alternatives 1-4
The historic sites in the canyon were important to the settlement of Klamath County and should be interpreted.	Alternatives 2,4
Maintain and keep up historic sites.	Alternatives 2,4
I would like to see some of the old cabins and the sites like the schoolhouse at Frain Ranch and the Way Ranch at least stabilized. You would not suffer from a lack of manpower if you asked various organizations for help in doing these tasks.	Alternatives 2,4

Historic landmarks should be kept open to the public as a source of heritage and beauty.	Alternatives 1-4
It is probably not necessary, nor practical, to restore or maintain the remains of structures but to try to avoid vandalism of these resources.	Alternatives 1-4
Bullet-proof interpretive signs should be provided at historic sites.	Alternatives 2,4
If we can't have signs in the canyon because of vandals, then use brochures, self-guided tours or guided tours for groups when requested.	Alternatives 2,4
How can sites be protected from vandalism?	Alternatives 1-4
More law enforcement is needed.	Alternative 4
More presence by people – not necessarily law enforcement -- is needed.	Alternatives 2,3,4
Sites should be protected but not at the expense of those who enjoy other sites along the Topsy Grade.	Alternatives 1-4
Sites can be marked with warnings posted of the historic values with notices of fines for desecration.	Alternatives 2,4
Historic sites previously located by the Klamath County Historic Landmark Commission should be relocated and mapped.	Alternatives 2,4
<b>WATERSHED VALUES</b>	
What will be the effect of proposed activities on water quality?	Alternatives 1-4
Induced residential, commercial and industrial growth can adversely affect water quality.	General Effects Discussion
Baseline water quality and trends should be studied in the planning process.	Affected Environment
Use volunteer groups to do stewardship projects.	Alternatives 1-4
Can water quality (natural condition) be improved?	Alternative design
The entire Klamath River has been listed as “water quality limited”.	Existing Condition / Affected Environment
Water requirements and habitat protection to meet water quality standards and protect beneficial uses must be a priority.	Alternatives 2,3,4
Water quality needs improved most of all.	Affected Environment
Poor water quality led to a major outbreak of <i>Columnaris</i> that resulted in hundreds of thousands of fish and aquatic organisms dying in the river.	Affected Environment
Foam is also at nuisance levels and it impairs the visitor's water contact experience, whether as a boater, fisher, or swimmer.	Affected Environment
Restoration or reconstruction of PacifiCorp's canal emergency spillway could reduce excessive erosion and sedimentation.	Alternatives 1-4
Floods bring sedimentation from logging practices. Big sediment loads clog the mouths of downstream creeks where fish try to retreat during bad river water conditions.	Outside Scope of Analysis. Affected Environment
Will the proposed action conform to management direction for Riparian Reserves and Aquatic Conservation Strategy objectives?	Effects discussion
Consider the feasibility of adding large woody debris to the riparian and shoreline area to improve channel stability and function.	Alternatives 2,3,4
Reestablishment of a healthy and diverse riparian community is important to meet Aquatic Conservation Strategy objectives.	Alternatives 2,3,4
Improve riparian habitat by streamside willow planting and bank stability improvement projects.	Alternatives 2,3,4

What are the impacts of proposed management actions on water quantity and river flows?	Effects discussion
The management plan must address the issue of water flows necessary to meet not only WSRA objectives but those of the Endangered Species Act.	Affected Environment/ Alternative Recommendations
The plan must address what water is needed to fulfill the purpose of outstanding and remarkable value protection.	Alternatives 1-4 & Effects discussion
Higher and more uniform flows will better achieve the outstanding and remarkable characteristics of the river both for the fish as well as improving the whitewater rafting experience with the Scenic River designation.	Effects discussion
Pursue river flows that optimize river rafting opportunities.	Alternatives 2,4
<b>WILDLIFE AND FISHERIES</b>	
How will wildlife, including threatened and endangered species, sensitive species, other species of concern, and the habitats of these species be affected by proposed management activities and recreation use?	Effects discussion
Protect T, E, and S species including bald eagles, peregrine falcons, shortnose and Lost River suckers, redband trout, Townsend's big-eared bat, and other State or Federally listed species and their habitat.	Alternatives 1-4
The impact of any developmental project and consumptive recreational use should be assessed as to its impacts on bird migration in the canyon.	Effects discussion
Studies should also be conducted to assess other species-specific connectivity functions and needs.	Alternative 3
As humans move in, wildlife moves out, so don't let any more humans move in.	Alternative 3
Poaching occurs in the canyon.	Alternative 4
How does existing management of the area affect fish, and how will the trout fishery be managed?	Effects discussion
The excellent trout fishery should be maintained.	Alternatives 1-4
Things should not be restored to conditions prior to 1850 just to benefit the fisheries.	Alternatives 1-4
Although fisheries are a resource, so is power and recreation. One should not take precedence over the other. The fish have survived many years of the powerhouses releases and will continue to survive.	Alternatives 1-4
If the flows are less haphazard and more planned the recreational users of the water can co-exist with the fisheries.	Alternatives 2,3,4 (Flow Study needed)
A more stable, natural flow regime would provide for increased, but manageable, angler use and provide for improved conditions for the trout population.	Alternatives 2,3,4
Wherever and whenever fish ladders/screens can be employed to protect fish species, they should be implemented.	Alternative 3
With more stable, seasonal flows, the stream's productivity would improve and I would expect the redband trout population to increase in both fish number and average size.	Alternatives 2,3
Irregular ramping creates fish "stranding ponds" which has a negative effect on the brood stock.	Affected Environment
Fish size – It appears that native trout do not grow to similar sizes as they do in comparable size and type streams especially at sites downstream of the J.C. Boyle Powerhouse). There are larger fish in the Bypass reach (River Segment 1).	Affected Environment Alternatives 1-4
Although the planning area is within the historical range of coho and steelhead, these fish were not in the area at the time of Scenic River designation.	Affected Environment Alternatives 2,3,4



What are the affects of hatchery fish on wild stock?	Outside Scope of Analysis
The Pacific Lamprey should be able to survive above the dams.	Effects discussion
Suggest that the BLM do a study on possible genetic relations between the Red Band and Steelhead, as well as the Pacific and Brook Lamprey.	Outside Scope of Analysis
How will wildlife habitat management affect other resource values?	Effects discussion
Limit wildlife enhancement projects so they don't restrict other uses.	Alternatives 1-4
Predatory animal control will be aggressively pursued on cougar, bears, and coyotes within our ancestral lands to aid the wildlife populations. Traditional methods of predator control do include baiting and the use of dogs.	Outside Scope of Analysis
Recreational catch and release of the fishery should be terminated permanently as the 10-30% mortality loss associated with this wanton waste type of recreational fishery is not acceptable to the Shasta people.	Outside Scope of Analysis
Restrictions on the use of bait must be ended as this method is both a recreational and traditional use.	Outside Scope of Analysis
Increase base minimum fish flows from Topsy dam.	Alternatives 2,3
Will reintroduction of salmon be proposed and how will it be accomplished?	Alternative 3
Restore anadromous fish passage.	Alternative 3
Restoration of the river ecosystem to its former productivity through fish passage is also a non-negotiable point. Technology exists to restore fish passage by the dams or the dams must be removed.	Outside Scope of Analysis
<b>FIRE AND FUELS</b>	
What is the current fire suppression strategy?	Current management discussion
Wildfire needs to be quickly controlled to prevent loss of the scenic value of the canyon.	Alternatives 1-4
What type and level of fuel treatments are necessary to protect resource values?	Alternatives 1-4
Use prescribed fire and low impact logging to reduce fuel loads.	Alternatives 1-4
Selective, careful, and thoughtful use of fire is a positive way to restore the former riparian seral stage to that of the pre-contact period.	Alternative 3
There is a need for fuel reduction treatments in the river canyon area.	Alternatives 1-4
The CDF (California Department of Forestry) would be a willing partner in fuels treatment proposals with BLM and USFS.	Alternatives 1-4
Control the fuel load through selective logging, controlled burns and control of slash on both public and private lands.	Alternatives 1-4
Management should allow for activities that will reduce the risk of fire to a natural range of variability.	Alternatives 1-4
Fuels treatment should incorporate all landowners in the canyon, with both public and private parties in agreement and collaborating.	Alternatives 1-4
<b>VEGETATION AND BIOLOGICAL DIVERSITY</b>	
How will vegetation be managed in the short and long-terms, including removal or control of exotic or noxious weed species?	Alternatives 1-4
Emphasis should be placed on maintaining the canyon's black and white oak woodland habitats which occur here at the eastern extent range.	Alternatives 1-4

“Restoration” projects should be geared to restoring and maintaining these habitats, but without logging larger diameter juniper and conifers that have survived in the canyon for over a century.	Alternatives 1-4
There are invasive weeds (like star thistle) that are existing within the river corridors that compete with native vegetation and habitat for animals and plants.	Alternatives 1-4
Remove all noxious weeds.	(Perhaps Infeasible) Alternatives 1-4
Non-native noxious weeds are to be eliminated by intensive management practices, native noxious species may require control measures as well.	Alternatives 1-4
No chemicals should be used to control noxious weeds.	Alternatives 1-4 (Possible for some species - See Programmatic Weed EA)
If foreign insects are used to control noxious weeds, then ensure that studies have been done to understand what effects those releases will have on the environment and that the insects will not get out of control.	Affected Environment - See Programmatic Weed EA)
While there is no discussion of the possibility for pesticide or other herbicide use, Oregon Natural Resources Council and the Klamath Forest Alliance would be highly critical of any such future plans.	Alternatives 1-4
BLM needs to first evaluate before recommending any particular controls, how cattle and other ground disturbing activities can be eliminated to minimize the chance of further noxious weed species’ reestablishment or spread.	Alternatives 1-4
Firewood cutting should be allowed in the canyon.	Alternative 4
What are the effects on rare or special habitats, such as springs, seeps, wallows, meadows, talus, and old-growth?	Effects Discussion
Guidelines need to be developed to protect this unique geological area.	Alternatives 1-4 (esp. Alt. 3)
How will the Unmapped LSR (District Designated Reserve) in the Topsy area be affected by proposed management activities within the canyon?	Effects Discussion
BLM needs to assess the impact of any planned development activities or ongoing human disturbances on the key connectivity functions of the Siskiyou Crest, Klamath River Canyon and Southern Cascades Landscape Corridors.	Alternatives 1-4
<b>SCENIC QUALITY</b>	
How will the visual quality to/from critical viewpoints within and outside of the river corridor be affected by management activities and use of the river and roads?	Alternatives 1-4
Because of the unique features in the area, it should remain as is.	Alternative 1
Preserve, enhance, restore where possible.	Alternatives 2,3
Include severe restrictions and limitations on all logging activities within view of the canyon rim when viewed in all directions from the highest points along the canyon rim.	Alternative 3
Scenic resources could be enhanced by removal of derelict wrecked autos off the upper end of Topsy Road.	Alternatives 1-4
Restore the road leading to the “Salt Caves Dam site”.	Alternative 3
Stabilization of river flows to a more natural regime which would allow for establishment of riparian vegetation in the unsightly “intertidal zone” that currently affronts visitors at all but high flow periods.	Outside Scope of Analysis
Foam and concentrated algae in the river degrade the scenic quality.	Outside Scope of Analysis
Restoration of the canal emergency spillway will improve scenic conditions.	Alternatives 1-4

<b>AIR QUALITY</b>	
What effects will proposed management, including fuel treatment, have on air quality?	Effects discussion
From prescribed fires, smoke will degrade air quality. Smoke contains multiple chemical compounds and particulate matter. Describe the impacts of the planned prescribe fires on air quality and visibility.	Effects discussion
Wildland and prescribed fires need to be conducted consistent with the Federal Clean Air Act.	Current management discussion
A smoke management program must be presented.	Alternatives 1-4
Class I airsheds and Wild and Scenic Rivers should be considered sensitive areas (receptors) that you need to identify and avoid when evaluating environment impacts.	Alternatives 1-4
Air quality monitoring must be completed.	Alternatives 1-4
<b>LAND TENURE/OWNERSHIP</b>	
Will land tenure (ownership) be altered in the area?	Alternatives 1-4
There are opportunities to develop new/different recreational sites if private lands are acquired in the canyon.	Alternatives 1-4
Acquire additional private lands within the river corridor in exchange for BLM lands elsewhere.	Alternatives 1-4
The BLM or Forest Service need to purchase the Frain Ranch private land section. PacifiCorp potentially has lands that they are interested in disposing.	Alternatives 1-4
PacifiCorp may want to acquire public land where they are permitted to operate existing facilities.	Alternatives 1-4
Acquire land through purchase/condemnation to distribute recreation use.	Alternatives 1-4
Acquire land to prevent housing near Canyon rim.	Outside Scope of Analysis
Acquire old Beswick hotel site and hot spring for future recreation development.	Alternatives 1-4
Propose to adjust the power withdrawal at the old housing site below powerhouse so the site can be used for public recreation.	Alternative 4
Given the uncertain future of private lands within the canyon, particularly in the Frain Ranch area, it would be prudent and appropriate to try to get those lands into public ownership to maintain future public use.	Alternatives 1-4
How will Klamath County and Siskiyou County “No Net gain” policies affect potential land tenure adjustments?	Alternatives 1-4
Acquisition of private land in California by BLM is of concern to Siskiyou County.	Alternatives 1-4
There may be interest by certain Tribes in acquiring land in the California portion of the river corridor.	Outside Scope of Analysis
Condemnation procedures should be used to acquire lands within the 1-mile area extending away from each rim to preserve the scenic values for future generations.	Outside Scope of Analysis
Acquire critical lands by purchase, trades, or use of condemnation for the Shasta Nation. This may include land acquired for trust purposes in the joint management efforts of the canyon and restoration of key cultural village sites used for ceremonial and religious purposes.	Outside Scope of Analysis
No housing or construction of any kind should occur near the canyon to prevent development, urban sprawl and subsequent permanent damage to the area – prevention can occur by purchase, litigation, or condemnation procedures to protect the wild and scenic values.	Outside Scope of Analysis

<b>SOCIO-ECONOMICS</b>	
What are the impacts, including induced effects, upon the local and regional economies, from potential changes in Land Tenure/Ownership?	Effects discussion
How will the economic viability and operations of existing permitted outfitters and guides be affected with proposed management?	Effects discussion
The Upper Klamath provides rafting and kayaking. Many commercial outfitters rely on this resource for livelihood. This stimulates commerce in an area with little else to live on.	Affected Environment
Releases from J.C. Boyle Powerhouse make possible boating recreational opportunities for thousands of people each season.	Affected Environment
What will be the socioeconomic impacts from management activities to surrounding landowners, private companies and the local community?	Effects discussion
Socioeconomic analysis should also consider power production, private timber land, grazing, etc.	Effects discussion
Evaluate the impact of the whitewater business on the health of the regional economies within Oregon and California?	Effects discussion
The deleterious water quality effects have caused an economic impact to downstream residents and visitors in the Klamath Basin. Your plan and EIS must discuss the economics of impairment and, conversely, the economics of restoration and meeting CWA objectives.	Affected Environment & Effects discussion
Your plan should include an economic section that determines the economic benefits that would come if water quality were improved to meet Clean Water Act required standards.	Effects discussion
Improved trout population and riparian condition would support much more angler use that would contribute to the local economies.	Alternatives 3,4
Rafting has few benefits to the local (Klamath Falls) economy.	Affected Environment
What will be the effects on Indian tribes, and minority and low-income populations?	Effects discussion
Identify tribal assets ( i.e., procured rights and the fiduciary responsibility that the federal government has for tribes).	Affected Environment
Discuss environmental justice issues, proposals that disproportionately affect minorities and those who are economically disadvantage. (Executive Order 12898 ( <i>Federal Actions to Address Environmental Justice In Minority Populations and Low-Income Populations</i> ) issued on February 11, 1994.)	Effects discussion
<b>PACIFICORP'S POWER GENERATING FACILITIES</b>	
How does existing or future operation of power generation facilities affect recreation management of the area?	Affected Environment & Effects discussion
Releases from J.C. Boyle Powerhouse should be consistent and predictable for increased enjoyment of the natural resources that flourish in the river canyon.	Affected Environment
To what extent will the plan address water releases from the J.C. Boyle powerhouse to meet recreation demand?	Existing Condition / Affected Environment
Minimum flows (1500 cfs or greater) need to be maintained to sustain the 20 year old rafting industry.	Affected Environment
Daily and timely releases are crucial for rafting, such as 10am releases Friday through Monday, and 11am releases Tuesday through Thursday.	Affected Environment
Disruptive peaking flows largely restrict trout habitat.	Affected Environment

Flow ramping affects fish habitat.	Affected Environment/ Alternative Recommendations
Determine the optimum level of water releases for fishing.	Affected Environment
Determine the optimum level of water releases for rafting.	Affected Environment
How does PacifiCorp's operation of power generating facilities affect the river ecosystem?	Existing Condition / Affected Environment
PacifiCorp's operation negatively affects water quality and quantity?	Existing Condition / Affected Environment
Erosion of river banks from the raising and lowering of the river (from the power plant operation) is a concern.	Existing Condition / Affected Environment
Dumping of water from the emergency spillway at the J.C. Boyle's canal tunnel entrance is causing excessive erosion and sedimentation.	Affected Environment
What are PacifiCorp's plans for maintaining, upgrading, or expanding their facilities within the plan area?	Existing Condition / Affected Environment
No new power lines or other obtrusive developments should be allowed within the river management corridor.	Affected Environment
Describe the level of maintenance of roads, recreation sites, power lines and bridges that PacifiCorp proposes.	Affected Environment
PacifiCorp stated that they are not planning to expand power generation to Keno dam.	Affected Environment
It is rumored that PacifiCorp is planning to add another generating unit to J.C. Boyle dam, and retrofitting Keno dam and other dams.	Affected Environment
How will this plan affect PacifiCorp's Operations in the planning area?	Effects discussion
The plan should not affect PacifiCorp's ability to operate and maintain existing transmission right-of-ways.	Effects discussion
The plan should recognize right-of-ways as utility corridors in accordance with Section 503 of the Federal Land Management and Policy Act.	Outside Scope of Analysis - Affected Environment (Exclusion Area in RMP)
It is not clear to ODEQ how and if the new KRMP and EIS may direct or motivate PacifiCorp to modify management and/or operation of its hydroelectric facilities or lands such that water quality may be affected.	Management Situation
How will this plan affect the FERC relicensing process for PacifiCorp's facilities?	Affected Environment
BLM should advocate first and foremost that PacifiCorp's relicensing results in the operation of the hydro facilities in a way that assures optimum salmonid fish passage and survival in Klamath River.	Outside Scope of Analysis
Can the dams be removed from the river?	Outside Scope of Analysis
<b>PRIVATE LAND</b>	
What are the effects on private land within the canyon from management of BLM land?	Existing situation & Effects discussion
Risks to PacifiCorp due to injury, harm or damages to persons or property are greatly increased when the public is encouraged to recreate on our property.	Existing situation & Effects discussion
PacifiCorp has incurred substantial costs as a result of damages caused by the public's use of PacifiCorp property, its recreation sites and trespass along the river.	Existing situation & Effects discussion
What role does the State of Oregon have in management of private lands within the River canyon?	Existing Condition / Affected Environment

How can the Federal government ensure adequate recreational access to the river if it doesn't own the land?	Existing Condition / Affected Environment / Effects
How can the Federal government allow recreational use (for example boater take-out at Frain ranch) if it doesn't own the land?	Existing Condition / Affected Environment / Effects
What is the liability to the government or the private land owner if use originating on public land is allowed to continue on private land.	Outside Scope of Analysis
What are the effects on private property owners within the canyon?	Effects discussion
Discuss the effects of proposed management direction on private property rights.	Effects discussion
Will management restrict private landowners ability to develop their private land?	Effects discussion
Describe why and how private lands would be acquired within the planning area boundaries.	Alternative design & Effects discussion
What are PacifiCorp's plans for managing land not associated with power generation within the planning area?	Affected Environment & Alternative design
PacifiCorp is concerned that the recreation planning for the area take into account the potential recreation development resources and values associated with PacifiCorp property and not limit their potential for development or sale.	Effects discussion
Water rights add considerable value to private property in the river corridor and should be recognized and protected.	Affected Environment
Impacts of plan objectives or recommended actions to the value of PacifiCorp's land holdings or the Company's continued ability to manage these lands, including financial implications, need to be addressed in the proposed management plan.	Effects discussion
What are the options to "trade-off" management of different lands in the canyon, for example, PacifiCorp owns Frain Ranch, but BLM spends more time there?	Alternatives 1-4
<b>CUMULATIVE IMPACTS</b>	
What are the cumulative effects that could occur with implementing the proposed management plan?	Effects discussion
Adverse effects that may result downstream as a result of implementing this management plan need to be analyzed.	Effects discussion
Cumulative effects need to be considered; including issuing permits for federal land use, that results in negative impacts occurring on private land.	Effects discussion
Fuels management can have negative cumulative effects on air quality.	Effects discussion
Cumulative effects to cultural resources result from recreational use in the canyon.	Alternative design & Effects discussion
OHV use can cause impacts to many other resources and these cumulative effects need to be addressed.	Alternative design & Effects discussion
Discuss any effects to land above J.C. Boyle dam.	Effects discussion
<b>OTHER ISSUES</b>	
What is the process for determining management of the River corridor?	EIS process discussion
Involve public and private organizations in development of the plan.	EIS process discussion
It is possible that beneficial actions for one ORV (Outstandingly Remarkable Value) could be in conflict with another.	Effects discussion



Expand the scope of your analysis to be sure that activities proposed are consistent with both the requirement of Section 10 and 12 of the federal Wild Scenic Rivers Act (i.e., protect and enhance the values).	Alternative design & Effects discussion
The planning area boundary needs to be expanded to include rim-to-rim management throughout the length of the planning area.	Alternative design
Include the river between the Keno dam and the J.C. Boyle dam (the Shasta Nation requests the inclusion of this short but pristine section for protection of resources).	Alternative Considered but Eliminated
Clarify the role the State of Oregon has in management of public and private lands within the River canyon?	Existing management situation discussion
What “baseline” condition will be considered for the analysis?	Affected Environment
Baseline should assume hydroelectric power generation since 1958 and ranching activities since the late 1800s.	Affected Environment
The Klamath River Plan Process needs strong representation on the subcommittee of the Klamath PAC from the outfitter, recreation and visitor bureau communities.	EIS process discussion
How does this process relate to other planning activities in the basin?	EIS process discussion
Describe the potential implications of the proposed action on the Bureau of Reclamation (BOR) Klamath River Anadromous Fish Restoration and Operation Plan (an attempt to address flow, water quality, and Endangered Species Act issues); FERC relicensing; and total Maximum Daily Load (TMDL) development.	Effects discussion
State how all four actions (i.e., BLM/River Management, FERC relicensing, BOR Operations; EPA/State TMDLs) would or could interact to maximize the environmental benefits for the River while addressing the purpose and need of the Federal action.	EIS process and Effects discussion
As a partner in the Klamath TMDL process, BLM will be expected to develop and implement a Water Quality Management Plan for lands under it’s jurisdiction including those lands being considered under the KRMP and EIS.	Affected Environment
Describe the effects of increasing Upper Klamath Lake storage capacity.	Affected Environment
BLM should identify problems in the upper Klamath basin that adversely affect downstream (Lower Klamath River) Wild and Scenic River values.	Affected Environment
What effect does grazing have on management of the river corridor?	Effects discussion
Grazing must be restrictive and tightly controlled.	Alternatives 2,3,4
Analyze how many AUMs are allowed on both public and private land and what impact that has on other resources?	Alternatives 1-4
Grazing and potential control of invasive weeds is contributing to non-attainment of water quality standards.	Alternatives 1-4
The Klamath Forest Alliance and Oregon Natural Resources Council do not believe grazing on BLM lands which are the subject of this plan are compatible with maintenance of the Klamath River’s outstanding and remarkable values.	Alternatives 2,3
Livestock grazing has no place in maintaining the natural environmental conditions that support the native species.	Alternatives 1-4
The Pokegama wild horse herd needs to be considered in your planning.	Alternatives 1-4
What management is proposed for Salt Caves?	Existing Condition / Affected Environment
If revived, the Salt Caves Project will affect river management.	Existing management situation discussion
Describe how the Cave management plan relates to this proposed river plan.	Existing management situation discussion
Will the current planning process revisit the status of other segments of the river.	Outside Scope of Analysis

Include a recommendation and action steps to gain Congressional approval for Wild and Scenic designation in California.	Outside Scope of Analysis
Segments 1 and 3 should be designated as a Wild and Scenic River.	Outside Scope of Analysis
BLM's upcoming plan should not defer to independent TMDLs that are being developed for each state but should recommend the development of an interstate TMDL.	Outside Scope of Analysis
PacifiCorp (for FERC relicensing) is currently only analyzing the effects of their permitted facilities and not the surrounding environment.	Outside Scope of Analysis
Pacific Power's West Side and East Side Projects (above Section 1) need to be analyzed because there are no fish screens. BLM could bring influence to bear on FERC relicensing of either of these facilities.	Outside Scope of Analysis
Although the Jenny Creek dam is outside of the immediate purview of this proposed management plan, the Klamath Falls Resource Area BLM should take the initiative in accomplishing removal of the diversion dam in cooperation with the landowners and the Redding BLM.	Outside Scope of Analysis
Although the Karuk territory is down stream, the dams still greatly effect their lands.	Outside Scope of Analysis

## **Appendix H – Proposed Management Actions**

The table on the following pages provides a detailed list of projects that are included under the four proposed alternatives.

## Appendix H - Proposed Management Actions by Alternative

RESOURCE/PROGRAM Action/location	Alternative 1— No action (continue existing management)	Alternative 2— Enhancement/improvement of opportunities and resources	Alternative 3— Natural resource enhancement/ restoration	Alternative 4— Expand human use opportunities (enhance recreation/values)
<b>SCENERY MANAGEMENT</b>				
<b>Sightseeing: visual resource management and enhancement</b>	<ul style="list-style-type: none"> <li>• No restrictions on sightseeing</li> <li>• Manage projects and activities to maintain VRM Class II objectives</li> <li>• Enhance landscaping and visual screening at camping/day use sites</li> <li>• Design vegetation treatment projects to reduce risk of catastrophic wildfire (long term) while allowing acceptable short-term visual resource impacts (9% percent of project area/decade)</li> <li>• Improve scenic quality and scenic views through priority targeted vegetation treatments and plantings around recreation sites and by creation of scenic overlooks</li> </ul>	<ul style="list-style-type: none"> <li>• No restrictions on sightseeing</li> <li>• Manage projects and activities to maintain VRM Class II objectives</li> <li>• Require vegetative screening and other measures to mitigate for hydroelectric project facilities scenic degradation</li> <li>• Enhance landscaping and visual screening at camping/day use sites</li> <li>• Design vegetation treatment projects to reduce risk of catastrophic wildfire (long term) while allowing acceptable short-term visual resource impacts (17% percent of project area/decade)</li> <li>• Improve scenic quality and scenic views through priority targeted vegetation treatments and plantings around recreation sites and by creation of scenic overlooks</li> </ul>	<ul style="list-style-type: none"> <li>• No restrictions on sightseeing, except where motorized access is limited</li> <li>• Manage projects and activities to maintain VRM Class II objectives</li> <li>• Require vegetative screening and other measures to mitigate for hydroelectric project facilities scenic degradation</li> <li>• Enhance landscaping and visual screening at camping/day use sites</li> <li>• Design vegetation treatment projects to reduce risk of catastrophic wildfire (long term) while allowing acceptable short-term visual resource impacts (27% percent of project area/decade)</li> <li>• Improve scenic quality and scenic views through priority targeted vegetation treatments and plantings around recreation sites and by creation of scenic overlooks</li> </ul>	<ul style="list-style-type: none"> <li>• No restrictions on sightseeing</li> <li>• Manage projects and activities to maintain VRM Class II objectives</li> <li>• Require vegetative screening and other measures to mitigate for hydroelectric project facilities scenic degradation</li> <li>• Enhance landscaping and visual screening at camping/day use sites</li> <li>• Design vegetation treatment projects to reduce risk of catastrophic wildfire (long term) while allowing acceptable short-term visual resource impacts (24% percent of project area/decade)</li> <li>• Enhance views through targeted vegetative manipulation (thinning and plantings)</li> <li>• Improve scenic quality and scenic views through priority targeted vegetation treatments and plantings around recreation sites and by creation of scenic overlooks</li> </ul>
<b>RECREATION</b>				
<i>Segment 1</i>				
<b>Developed campgrounds</b>	1 campground	1 campground	1 campground	1 campground
<b>(fee sites)</b>	(15 campsites)	(15 campsites)	(15 campsites)	(15 campsites)

RESOURCE/PROGRAM Action/location	Alternative 1— No action (continue existing management)	Alternative 2— Enhancement/improvement of opportunities and resources	Alternative 3— Natural resource enhancement/ restoration	Alternative 4— Expand human use opportunities (enhance recreation/values)
<b>Designated dispersed camps (picnic table, fire grate, and possible toilet)</b>	0 camps  (0 campsites)	0 camps  (0 campsites)	0 camps  (0 campsites)	1 camp  (3–5 campsites)  • Big Bend Park: construct access road, camp loop, and campsites. Install toilet, tables and fire grate. Construct trailhead parking area.
<b>Developed day use sites</b>	0 sites  • No recommended	7 sites  • J.C. Boyle fish ladder and dam history overlook (PacifiCorp)  • Big Bend Trailhead; parking area and restroom (BLM)  • Improve three existing user-established trailheads along canal access road (designate and sign); maintain and improve parking (PacifiCorp and BLM)  • Powerhouse shed/fishing access site; improve and maintain existing parking area (designate and sign, handicap access for fishing) (PacifiCorp)	2 sites  • Powerhouse shed/fishing access site (PacifiCorp)  • Develop fishing access at bridge site below J.C. Boyle dam; parking area (PacifiCorp)	7 sites  • J.C. Boyle fish ladder and dam history overlook; enhanced fish viewing opportunity and improved parking (PacifiCorp)  • Big Bend Trailhead; parking area and restroom (BLM)  • Improve 3 existing user-established trailheads along canal access road (designate and sign); maintain and improve parking (PacifiCorp and BLM)  • Powerhouse shed/fishing access site; improve and maintain existing parking area (designate and sign, handicap access for fishing) (PacifiCorp)
<b>Trails</b>				
Nonmotorized Trails	0 miles	5 miles  • Construct Big Bend Fishing Access Trail (2 miles); extend this trail to Topsy Campground (3 miles); install warning system at emergency bypass	2 miles  • Convert Canal access road (2 miles) nonmotorized/administrative access route only	8 miles  • Construct Big Bend Fishing Access Trail (2 miles); extend this trail to Topsy Campground (3 miles) and extend Klamath River edge trail upstream from Segment 2 (about 3 miles)

<b>RESOURCE/PROGRAM Action/location</b>	<b>Alternative 1— No action (continue existing management)</b>	<b>Alternative 2— Enhancement/improvement of opportunities and resources</b>	<b>Alternative 3— Natural resource enhancement/ restoration</b>	<b>Alternative 4— Expand human use opportunities (enhance recreation/values)</b>
Motorized Tour Routes	5 miles (outside planning area boundary) • Nominate Topsy Road for national back country byway; sign and designate motorized tour route on existing roads (5 miles) • OHV use limited to designated roads	5 miles (outside planning area boundary) • Nominate Topsy Road for national back country byway and national historic trail; sign and designate motorized tour routes on existing roads (5 miles) • OHV use limited to designated roads; partner with OHV groups to educate users and maintain resources	5 miles (outside planning area boundary) • Nominate Topsy Road for national back country byway and national historic trail; sign and designate motorized tour routes on existing roads (5 miles) • OHV use limited to designated roads; partner with OHV groups to educate users and maintain resources	5 miles (outside planning area boundary) • Nominate Topsy Road for national back country byway and national historic trail; sign and designate motorized tour routes on existing roads (5 miles) • OHV use limited to designated roads; partner with OHV groups to educate users and maintain resources
<b>Bridges</b>		Replace or repair motorized access bridge below J.C. Boyle Dam; provide primitive float boater launch, parking area, and restroom (assuming increased flows) (PacifiCorp)		Replace or repair motorized access bridge below J.C. Boyle Dam; provide primitive float boater launch, parking area, and restroom (assuming increased flows) (PacifiCorp)
<b>Interpretation/environmental education</b>	1 sites • Topsy Road Back Country Byway portal sign at Topsy Campground	3 sites • Provide interpretive panels on Bypass Reach at J.C. Boyle fish ladder and Powerhouse shed fishing site • Topsy Road Back Country Byway portal sign at Topsy Campground	0 sites	3 sites • Provide interpretive panels on Bypass reach at J.C. Boyle fish ladder and Powerhouse shed fishing site • Topsy Road Back Country Byway portal sign at Topsy Campground



RESOURCE/PROGRAM Action/location	Alternative 1— No action (continue existing management)	Alternative 2— Enhancement/improvement of opportunities and resources	Alternative 3— Natural resource enhancement/ restoration	Alternative 4— Expand human use opportunities (enhance recreation/values)
<i>Segment 2</i>				
<b>Developed campgrounds (fee sites with water)</b>	0 campground (0 campsites)	0 campground (0 campsites)	0 campground (0 campsites)	3 campgrounds (16–22 campsites)  <ul style="list-style-type: none"> <li>• Klamath River Campground (BLM); rebuild designated dispersed camp with 10–15 campsites, new toilets, trash service, drinking water, electricity/lights, and develop drift boat launch</li> <li>• Turtle Camp (BLM); relocate designated dispersed camp from conifer to oak grove area upstream; install shared toilet; define and harden parking areas and fire ring areas; install barriers; develop 3<sup>rd</sup> site for large group; install picnic tables; develop drinking water at site (3 sites)</li> <li>• Lower Frain, river left (PacifiCorp); Recommend reduced motorized access through road obliteration; improve boater access with hardened boat launch and construct vandal-resistant vault toilet; add camp host site (with full hookups), and add potable water to facilities; reduce/eliminate nondesignated camps (3–4 campsites)</li> </ul>

RESOURCE/PROGRAM Action/location	Alternative 1— No action (continue existing management)	Alternative 2— Enhancement/improvement of opportunities and resources	Alternative 3— Natural resource enhancement/ restoration	Alternative 4— Expand human use opportunities (enhance recreation/values)
<b>Designated dispersed camps (picnic table, fire grate, and possible toilet)</b>	<p>3 camps (8 -campsites)</p> <ul style="list-style-type: none"> <li>• Existing Klamath River Camp (BLM); 3 campsites</li> <li>• Existing Turtle Camp (BLM dispersed group campsites); maintain site, install barriers and small information signboards; 2 campsites</li> <li>• Lower Frain Ranch Camps, river left (PacifiCorp); no management (coordinate with PacifiCorp on management of their lands); 3 campsites</li> </ul>	<p>4 camps (12–14 campsites)</p> <ul style="list-style-type: none"> <li>• Existing Klamath River Camp (BLM); maintain site, install barriers to better define campsites, hazard tree removal; relocate campsite near willow stand to upland; replace toilet; close road upstream; 3 campsites</li> <li>• Old Bridge Camp (east side of river BLM and other); install fire rings and toilets near most popular sites, shared between sites where possible, construct new spur access road; obliterate one campsite; two improved campsites</li> <li>• Turtle Camp (BLM); relocate Site 1 from conifer to oak grove area upstream of Site 2; install shared toilet; define and harden parking areas and fire ring areas; install barriers; two campsites</li> <li>• Frain Ranch Camps, northwest side of river (PacifiCorp/BLM); allow dispersed camping on upland in 2–3 sites; construct 0.1 mile access road to sites</li> <li>• Lower Frain Ranch camps, river left (PacifiCorp); define and harden parking and fire grate areas, reduce/eliminate nondesignated campsites, improve boater access with hardened boat launch, and construct vandal-resistant vault toilet; 3–4 campsites</li> </ul>	<p>3 camps (7 campsites)</p> <ul style="list-style-type: none"> <li>• Relocate Klamath River Camp (BLM) to uplands, minimum of 100 feet from river; relocate road to above camp; consider converting camp to nonmotorized access, short walk from parking area; 3 campsites</li> <li>• Old Bridge Camp (east side of river BLM and other); obliterate duplicate road and close camp to motorized access north of old bridge site; rehabilitate camp; 0 sites</li> <li>• Existing Turtle Camp (BLM); remove permanent fire rings, area is subject to fire closures; nonmotorized access only; 2 campsites</li> <li>• Lower Frain Ranch Camps, river left (PacifiCorp); close area to motorized traffic; 2 sites</li> </ul>	<p>4 camps (11–13 -campsites)</p> <ul style="list-style-type: none"> <li>• Powerhouse Camp (former PacifiCorp housing site); 5 campsites, tree screening, restroom, and host site with septic and water</li> <li>• Old Bridge Camp (east side of river BLM and other) install shared toilets, table, and fire ring; 2–3 campsites</li> <li>• Frain Ranch Camps, northwest side of river (PacifiCorp/BLM); install shared toilets; develop 2–3 sites with hardened surface, table, and fire ring; construct 0.1 mile access road to sites</li> <li>• Tom Creek Substation/Hoover Ranch Camp (BLM); define and harden road and parking area near river; improve main road leading to site; develop site with boat/vehicle launch area, toilet, and 2 campsites</li> </ul>

RESOURCE/PROGRAM Action/location	Alternative 1— No action (continue existing management)	Alternative 2— Enhancement/improvement of opportunities and resources	Alternative 3— Natural resource enhancement/ restoration	Alternative 4— Expand human use opportunities (enhance recreation/values)
<b>Developed day use sites</b>	<p>2 sites developed</p> <p>1 site monitored</p> <ul style="list-style-type: none"> <li>• Powerhouse site (former PacifiCorp housing site); continue to allow large vehicle parking and turn-around (KFRMP/FEIS)</li> <li>• Existing Spring Island launch site/Klamath River boaters access (BLM); maintain site and improve information signs</li> <li>• River Gorge lunch/stop areas (BLM); (not developed); monitor, close to commercial use if necessary</li> </ul>	<p>4 sites developed</p> <p>1 site monitored</p> <ul style="list-style-type: none"> <li>• Powerhouse site (former PacifiCorp housing site); develop interpretive display, tour gathering area, day use/ picnic area</li> <li>• Spring Island launch site/Klamath River boaters access (BLM); replace/upgrade toilets and changing rooms</li> <li>• River Gorge lunch/stop areas (BLM); (not developed); monitor, close to commercial use if necessary</li> <li>• Hoover Ranch (PacifiCorp); nonmotorized access; install interpretive signs</li> <li>• Develop Tom Creek Substation/Hoover Ranch river access (BLM); define and harden road and parking area near river</li> </ul>	<p>1 site developed</p> <p>2 sites obliterated</p> <p>2 sites monitored</p> <ul style="list-style-type: none"> <li>• Powerhouse site (former PacifiCorp housing site); remove existing structures, rehabilitate, and revegetate the site</li> <li>• Spring Island launch site/Klamath River boaters access (BLM); maintain site and improve information signs</li> <li>• River Gorge lunch/stop areas (BLM); (not developed) monitor, close to commercial use if necessary</li> <li>• Hoover Ranch (PacifiCorp); (not developed) encourage nonmotorized access into area, implement regulated seasonal closure of roads, and monitor.</li> <li>• Obliterate and rehabilitate Tom Creek Substation/Hoover Ranch river access (BLM)</li> </ul>	<p>4–7 sites developed</p> <ul style="list-style-type: none"> <li>• Powerhouse site (former PacifiCorp housing site); develop interpretive display, tour gathering area, day use/ picnic area</li> <li>• Spring Island launch site/Klamath River boaters access (BLM); improve information signs; replace/upgrade toilets and changing rooms; develop overflow area; improve day use areas with tables and benches</li> <li>• River Gorge lunch/stop areas (BLM); monitor, install fire rings and tables (1–4 sites)</li> <li>• Hoover Ranch (PacifiCorp); encourage motorized access into area; install interpretive signs</li> </ul>
<b>Trails</b>				
Nonmotorized trails	<p>18 miles</p> <ul style="list-style-type: none"> <li>• Klamath River Edge Trail (BLM); reestablish roadblocks, maintain the trail for nonmotorized use, 1 mile;</li> <li>• Klamath Rim trail (BLM and private); obtain easements and construct trail, south rim from Big Bend to Stateline Recreation Site, 14 miles</li> <li>• Caldera to Hell's Corner Trail (BLM and PacifiCorp); construct trail north side of river, 3.3 miles</li> <li>• Old motorized bridge site (BLM -west side of river); continue to allow use of old bridge site, allow for dispersed camping/recreation activities at site</li> </ul>	<p>15 miles</p> <ul style="list-style-type: none"> <li>• Klamath River Edge Trail (BLM and PacifiCorp); construct new trail from Stateline to Powerhouse site (includes 6 miles old road converted to nonmotorized trail) 12.5 miles</li> <li>• One mile of road converted to trail at Construct foot bridge at old motorized bridge site below Klamath River campground; construct aesthetically blending, nonmotorized accessible bridge (all-terrain vehicle access for administrative purposes),</li> <li>• Caldera Rapid Trail (PacifiCorp); construct scouting trail, 0.25 mile</li> <li>• Salt Caves Overlook Trail; obliterate and rehabilitate access road and convert to nonmotorized trail, 0.5 miles</li> <li>• Hell's Corner Rapid Trail (BLM); Construct scouting trail on river left, 0.5 miles</li> </ul>	<p>8 miles</p> <ul style="list-style-type: none"> <li>• Klamath River Edge Trail; convert old road to nonmotorized trail from Frain Ranch to Spring Island boat launch, 5.5 miles</li> <li>• Caldera Rapid Trail (PacifiCorp); construct scouting trail, 0.25 mile</li> <li>• Salt Caves Overlook Trail (BLM); obliterate and rehabilitate access road and convert to nonmotorized trail, 0.5 miles</li> <li>• Tom Creek substation to Hoover Ranch trail (BLM and PacifiCorp); construct 0.5 miles new trail</li> </ul>	<p>15 miles</p> <ul style="list-style-type: none"> <li>• Klamath River Edge Trail (BLM and PacifiCorp); construct new trail from Stateline to Powerhouse site, (includes 6 miles old road converted to nonmotorized trail), 12.5 miles</li> <li>• Bridge site below campground, east side (BLM); convert road to trail, one mile</li> <li>• Caldera Rapid Trail (PacifiCorp); construct scouting trail and improve boat landing areas and connecting trails, 0.25 miles</li> <li>• Salt Caves Overlook Trail; obliterate and rehabilitate access road and convert to nonmotorized trail, 0.5 miles</li> <li>• Hell's Corner Rapid Trail (BLM); Construct scouting trail on river left, 0.5 miles</li> </ul>

<b>RESOURCE/PROGRAM Action/location</b>	<b>Alternative 1— No action (continue existing management)</b>	<b>Alternative 2— Enhancement/improvement of opportunities and resources</b>	<b>Alternative 3— Natural resource enhancement/ restoration</b>	<b>Alternative 4— Expand human use opportunities (enhance recreation/values)</b>
Motorized tour routes	<p>11 miles (4 miles outside planning area boundary)</p> <ul style="list-style-type: none"> <li>• Nominate Topsy Road for national back country byway; sign and designate motorized tour route on existing road (11 miles)</li> <li>• OHV use limited to designated roads</li> </ul>	<p>30 miles (4 miles outside planning area boundary)</p> <ul style="list-style-type: none"> <li>• Highway 66/J.C. Boyle Powerhouse/ Tom Creek Substation Road (lower section from Frain Ranch to Tom Creek Substation); maintain for a 4-wheel drive tour route (19 miles)</li> <li>• Nominate Topsy Road for national back country byway and national historic trail; sign and designate motorized tour route on existing road (11 miles)</li> <li>• OHV use limited to designated roads; partner with OHV groups to educate users and maintain resources</li> </ul>	<p>11 miles (4 miles outside planning area boundary)</p> <ul style="list-style-type: none"> <li>• Nominate Topsy Road for National Back Country Byway and National Historic Trail; Sign and designate motorized tour route on existing road (11 miles)</li> <li>• Greatly restrict OHV use through extensive road closures and road rehabilitation; OHV use limited to designated roads; partner with OHV groups to educate users and maintain resources</li> </ul>	<p>36 miles (4 miles outside planning area boundary)</p> <ul style="list-style-type: none"> <li>• Nominate Topsy Road for national back country byway and national historic trail; sign and designate motorized tour routes on existing road (11 miles)</li> <li>• OHV use limited to designated roads; partner with OHV groups to educate users and maintain resources</li> <li>• Connect Topsy Road with J.C. Boyle Powerhouse Road (4 miles)</li> <li>• J.C. Boyle Powerhouse/Tom Creek Substation Road (lower section from Frain Ranch to Tom Creek Substation); maintain for a 4-wheel drive tour route (21 miles)</li> </ul>
<b>Bridges</b>		<ul style="list-style-type: none"> <li>• Construct aesthetically blending, nonmotorized accessible bridge (all-terrain vehicle access for administrative purposes) at old motorized bridge site below Klamath River campground.</li> </ul>		<ul style="list-style-type: none"> <li>• Construct aesthetically blending, motorized accessible bridge (all-terrain vehicle access for administrative purposes) at old motorized bridge site below Klamath River campground.</li> </ul>

RESOURCE/PROGRAM Action/location	Alternative 1— No action (continue existing management)	Alternative 2— Enhancement/improvement of opportunities and resources	Alternative 3— Natural resource enhancement/ restoration	Alternative 4— Expand human use opportunities (enhance recreation/values)
<b>Interpretation/environmental education</b>	1 site  • Develop interpretive displays at Powerhouse site (PacifiCorp); • Develop interpretive brochure for Topsy Road and OHV tour opportunities (BLM)	7 sites  • Develop interpretive display at Powerhouse site (PacifiCorp) • Develop interpretive display at Spring Island (BLM) • Construct Topsy Road portal signs (BLM) • Develop interpretive panel at Section 35 overlook on Topsy Road (BLM) • Develop interpretive brochure and assurance signing for Topsy Road and OHV tour opportunities (BLM) • Develop interpretive panel at Frain Main Cabin (Beak Field No. 21) (PacifiCorp) • Develop interpretive panel at Topsy School House (BLM) • Develop outreach program between the river outfitters and Tribes (BLM) • Partner with OHV groups to educate users and maintain resources (BLM)	3 sites  • Develop interpretive display at Spring Island (BLM) • Develop interpretive display at Frain Ranch (PacifiCorp) • Construct Topsy Road portal signs (BLM) • Develop interpretive brochure for Topsy Road and OHV tour opportunities (BLM)	8 sites  • Develop interpretive display at Powerhouse site (PacifiCorp) • Develop interpretive display at Spring Island (BLM) • Construct Topsy Road portal signs (BLM) • Develop interpretive panel at Section 35 overlook on Topsy Road about the prehistory of area and other subjects (BLM) • Develop interpretive panel at Frain Main Cabin (Beak Field No. 21) (PacifiCorp) • Develop interpretive panel at Topsy School House (BLM) • Develop interpretive display at Hoover Ranch (PacifiCorp) • Develop interpretive brochure for Topsy Road and OHV tour opportunities (BLM) • Develop outreach program between the river outfitters and Tribes (BLM) • Partner with OHV groups to educate users and maintain resources (BLM)
<i>Segment 3</i>				
<b>Developed campgrounds (fee sites with water)</b>	0 campgrounds (0 campsites)	1 campground (5–10 campsites)  • Construct Shovel Creek Campground (PacifiCorp) and boat ramp, 5–10 campsites, including 2–3 large group sites	0 campground (0 campsites)	1 campground (10–15 campsites)  • Construct Shovel Creek Campground (PacifiCorp) and boat ramp, 10–15 campsites, including 2–3 large group sites

RESOURCE/PROGRAM Action/location	Alternative 1— No action (continue existing management)	Alternative 2— Enhancement/improvement of opportunities and resources	Alternative 3— Natural resource enhancement/ restoration	Alternative 4— Expand human use opportunities (enhance recreation/values)
<b>Designated dispersed camps (picnic table, fire grate, and possible toilet)</b>	<p>1 camp (3–6 campsites)</p> <ul style="list-style-type: none"> <li>• Stateline Recreation Site (PacifiCorp lands); below canal bench closed to camping, coordinate management of PacifiCorp property;</li> <li>• Stateline Recreation Site (BLM portion); continue to allow primitive camping above canal bench and upper flat; replace toilets on upper flat, allow for improvements and expansion of campsites per KFRMP/FEIS, 3–6 campsites</li> </ul>	<p>3 camps (5-8 campsites - 2 camps with no facilities)</p> <ul style="list-style-type: none"> <li>• Stateline Recreation Site (PacifiCorp lands); below canal bench closed to camping improve (rocked) parking and boat ramp, construct permanent restroom and changing facilities, coordinate management of PacifiCorp property;</li> <li>• Stateline Recreation Site (BLM portion); allow for improving and expanding group and individual campsites with hardened parking; continue to allow camping above canal bench and upper flat; replace toilets on upper flat, 3–6 campsites</li> <li>• Panther Canyon (PacifiCorp); allow primitive camping</li> <li>• Shovel Creek Canyon (PacifiCorp); allow primitive camping</li> </ul>	<p>2 camps (4–6 campsites)</p> <ul style="list-style-type: none"> <li>• Close and rehabilitate Stateline Recreation Site lower bench (PacifiCorp and BLM); contingent upon relocating take-out to Fishing Access #6, 0 campsites</li> <li>• Maintain primitive camping on upper flat at Stateline Camp (BLM); replace existing toilets; 2 campsites</li> <li>• Develop Fishing Access #6 Camp (PacifiCorp) for rafting take-out; better define road and improve parking, and construct changing rooms; work with PacifiCorp and outfitters to cooperatively manage site; 2–4 campsites</li> </ul>	<p>4 camps (8–14 campsites)</p> <ul style="list-style-type: none"> <li>• Stateline Recreation Site (PacifiCorp lands); allow for improving and expanding group and individual campsites; improve (paved) parking and boat ramp, construct permanent restroom and changing facilities; improve take-out with paved access road, parking, and boat ramp, 2–4 campsites;</li> <li>• Stateline Recreation Site (BLM portion); continue to allow camping above canal bench and upper flat; replace toilets on upper flat, allow for improvements and expansion of campsites per KFRMP/FEIS, 2–4 additional campsites</li> <li>• Panther Canyon (PacifiCorp); allow primitive camping, recommend developing 2–3 sites</li> <li>• Shovel Creek Canyon (PacifiCorp); allow primitive camping, recommend developing 2–3 sites</li> </ul>



RESOURCE/PROGRAM Action/location	Alternative 1— No action (continue existing management)	Alternative 2— Enhancement/improvement of opportunities and resources	Alternative 3— Natural resource enhancement/ restoration	Alternative 4— Expand human use opportunities (enhance recreation/values)
<b>Developed day use sites</b>  (These numbers include Access # 1 which is outside the project boundary)	7 sites  <ul style="list-style-type: none"> <li>• Stateline Rec. Site (PacifiCorp); below canal bench closed to camping, coordinate management of PacifiCorp property for day use only</li> <li>• Existing Fishing Access #6 (PacifiCorp); work with PacifiCorp and outfitters to cooperatively manage site</li> <li>• Existing Fishing Access #5 (PacifiCorp); parking, toilet, garbage and access trail</li> <li>• Existing Fishing Access #4 (PacifiCorp); parking, toilet, garbage and access trail</li> <li>• Existing Fishing Access #3 (PacifiCorp); parking, toilet, garbage and access trail</li> <li>• Existing Fishing Access #2 (PacifiCorp); parking, toilet, garbage and access trail</li> <li>• Existing Fishing Access #1 (PacifiCorp, adjacent to planning area boundary); parking, raft take-out, garbage and portable toilets; work with PacifiCorp and outfitters to cooperatively manage site</li> </ul>	7 sites  <ul style="list-style-type: none"> <li>• Consider developing Shovel Creek Hot Springs for day use (PacifiCorp)</li> <li>• Develop Fishing Access #6 (PacifiCorp) for rafting take-out; better define road and improve parking, and construct changing rooms; work with PacifiCorp and outfitters to cooperatively manage site</li> <li>• Upgrade Fishing Access #5 (PacifiCorp); parking, toilet, and trail for accessibility</li> <li>• Upgrade Fishing Access #4 (PacifiCorp); parking, toilet, and trail for accessibility</li> <li>• Upgrade Fishing Access #3 (PacifiCorp); parking, toilet, and trail for accessibility</li> <li>• Upgrade Fishing Access #2 (PacifiCorp); parking, toilet, and trail for accessibility</li> <li>• Existing Fishing Access #1 (PacifiCorp, adjacent to planning area boundary); work with PacifiCorp and outfitters to cooperatively manage site, improve parking, raft take-out, toilets for accessibility, provide changing rooms with permanent vault toilets</li> </ul>	5 sites  <ul style="list-style-type: none"> <li>• Stateline Recreation Site lower bench (PacifiCorp and BLM); area open to nonmotorized day use only, no developments</li> <li>• Existing Fishing Access #4 (PacifiCorp); maintain parking, toilet, garbage and access trail</li> <li>• Existing Fishing Access #2 (PacifiCorp); maintain parking, toilet, garbage and access trail</li> <li>• Construct Shovel Creek Hot Springs day use area (PacifiCorp)</li> <li>• Close and rehabilitate Fishing Access #5</li> <li>• Close and rehabilitate Fishing Access #3</li> <li>• Existing Fishing Access #1 (PacifiCorp, adjacent to planning area boundary); parking, raft take-out, garbage and portable toilets work with PacifiCorp and outfitters to cooperatively manage site</li> </ul>	8 sites  <ul style="list-style-type: none"> <li>• Develop Fishing Access #6 (PacifiCorp) for rafting take-out; better define road and improve parking, and construct changing rooms; work with PacifiCorp and outfitters to cooperatively manage site</li> <li>• Upgrade Fishing Access #5 (PacifiCorp); parking, toilet, and trail for accessibility</li> <li>• Consider developing Shovel Creek Hot Springs day use area and large group pavilion (PacifiCorp)</li> <li>• Construct Shovel Creek Canyon trailhead day use area (PacifiCorp)</li> <li>• Upgrade Fishing Access #4 (PacifiCorp); parking, toilet, and trail for accessibility</li> <li>• Upgrade Fishing Access #3 (PacifiCorp); parking, toilet, and trail for accessibility</li> <li>• Upgrade Fishing Access #2 (PacifiCorp); parking, toilet, and trail for accessibility</li> <li>• Existing Fishing Access #1 (PacifiCorp, adjacent to planning area boundary); work with PacifiCorp and outfitters to cooperatively manage site, implement site development plan as proposed by PacifiCorp in 1988, improving parking, raft take-out, toilets for accessibility, provide changing rooms with permanent vault toilets</li> </ul>

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<b>Trails</b>				
Nonmotorized trails	0.2 miles <ul style="list-style-type: none"> <li>Fishing access #2–6 (PacifiCorp) river access trails only, 0.2 mile</li> </ul>	9.5 miles <ul style="list-style-type: none"> <li>Fishing access #2–6 (PacifiCorp) river access trails, 0.2 mile</li> <li>Klamath River Edge Trail (BLM and PacifiCorp); construct trail from Stateline to Copco community (includes 3 miles road converted to trail), 6 miles</li> <li>Panther Canyon Overlook Trail (PacifiCorp); 2 miles (regulated access)</li> <li>Shovel Creek trail (PacifiCorp); 1.3 miles road converted to trail and regulated access</li> </ul>	6.4 miles <ul style="list-style-type: none"> <li>Fishing access #2 and 4 (PacifiCorp) river access trails, 0.1 mile</li> <li>Klamath River Edge Trail (BLM and PacifiCorp); 3 miles road converted to trail from Stateline to Beswick Hotel site</li> <li>Panther Canyon Overlook Trail (PacifiCorp); 2 miles (regulated access)</li> <li>Shovel Creek trail (PacifiCorp); 1.3 miles road converted to trail</li> </ul>	8.2 miles <ul style="list-style-type: none"> <li>Fishing access #2–6 (PacifiCorp) river access trails, 0.2 mile</li> <li>Klamath River Edge Trail (BLM and PacifiCorp); construct trail from Stateline to Copco community (includes 3 miles road converted to trail), 6 miles</li> <li>Shovel Creek Trail (PacifiCorp); (includes 0.3 miles road converted to trail) 2 miles</li> </ul>
Motorized tour routes	6 miles <ul style="list-style-type: none"> <li>OHV use limited to designated roads</li> <li>Nominate Topsy Road for National Back Country Byway, 6 miles</li> </ul>	9 miles <ul style="list-style-type: none"> <li>Sign and designate tour routes on existing roads; OHV use limited to designated roads; partner with OHV groups to educate users and maintain resources</li> <li>Nominate Topsy Road for National Back Country Byway and National Historic Trail, 6 miles</li> <li>Panther Canyon Overlook Route (PacifiCorp); 2 miles permitted access</li> <li>Shovel Creek Route (PacifiCorp); 0.8 miles permitted access</li> </ul>	6 miles <ul style="list-style-type: none"> <li>Greatly restrict OHV use through extensive road closures and road rehabilitation</li> <li>Nominate Topsy Road for National Back Country Byway and National Historic Trail, 6 miles; sign and designate motorized tour route on existing roads;</li> </ul>	9 miles <ul style="list-style-type: none"> <li>Develop new OHV trail routes, primarily in California (PacifiCorp); sign and designate OHV tour routes on existing roads; OHV use limited to designated roads; partner with OHV groups to educate users and maintain resources</li> <li>Nominate Topsy Road for National Back Country Byway and National Historic Trail, 6 miles</li> <li>Panther Canyon Overlook Route (PacifiCorp); 2 miles</li> <li>Shovel Creek Route (PacifiCorp); 0.8 miles</li> </ul>

RESOURCE/PROGRAM Action/location	Alternative 1— No action (continue existing management)	Alternative 2— Enhancement/improvement of opportunities and resources	Alternative 3— Natural resource enhancement/ restoration	Alternative 4— Expand human use opportunities (enhance recreation/values)
<b>Interpretation/environmental education</b>	1 site <ul style="list-style-type: none"> <li>• Topsy Road Back Country Byway portal sign at Stateline Recreation Site</li> <li>• Develop pamphlets on history of the area</li> <li>• Existing Fishing Access #1 interpretive panel (PacifiCorp, adjacent to planning area boundary)</li> </ul>	2 sites <ul style="list-style-type: none"> <li>• Develop interpretive panels on Topsy Road between Fishing Access #1 and #2 (Siskiyou County and PacifiCorp)</li> <li>• Develop interpretive panels at Old Beswick Hotel site (PacifiCorp)</li> <li>• Develop pamphlets on history of the area</li> <li>• Develop outreach program between the river outfitters and Tribes (BLM)</li> <li>• Partner with OHV groups to educate users and maintain resources (BLM)</li> </ul>	1 site <ul style="list-style-type: none"> <li>• Develop interpretive panels on Topsy Road between Fishing Access #1 and #2 (Siskiyou County and PacifiCorp)</li> <li>• Develop pamphlets on history of the area</li> <li>• Develop outreach program between the river outfitters and Tribes (BLM)</li> </ul>	3 sites <ul style="list-style-type: none"> <li>• Develop interpretive panels on Topsy Road between Fishing Access #1 and #2 (Siskiyou County and PacifiCorp)</li> <li>• Develop interpretive signs at Old Beswick Hotel (PacifiCorp)</li> <li>• Consider converting the Community Hall into an interpretive center (PacifiCorp)</li> <li>• Develop pamphlets on history of the area</li> <li>• Develop outreach program between the river outfitters and Tribes (BLM)</li> <li>• Partner with OHV groups to educate users and maintain resources (BLM)</li> </ul>
<b>Firearm use/restrictions</b>	<ul style="list-style-type: none"> <li>• No restrictions on target shooting/varmint hunting except posted No Shooting signs around Klamath River Campground</li> </ul>	<ul style="list-style-type: none"> <li>• Restrict shooting from mid-May to mid-September from Frain Ranch to J.C. Boyle Dam; post No Shooting signs around all camping sites and visitor use areas, all segments</li> </ul>	<ul style="list-style-type: none"> <li>• Restrict target shooting/varmint hunting from mid-May to mid-September from Frain Ranch to J.C. Boyle Dam; post No Shooting signs around all camping sites and visitor use areas, all segments</li> </ul>	<ul style="list-style-type: none"> <li>• Restrict target shooting/varmint hunting from mid-May to mid-September from Frain Ranch to J.C. Boyle Dam; post No Shooting signs around all camping sites and visitor use areas, all segments</li> <li>• Increase law enforcement patrols to manage increased visitor numbers</li> </ul>
<b>Private/self outfitted whitewater boating use limits</b>	<ul style="list-style-type: none"> <li>• No limit on number of users</li> <li>• Voluntary self registration</li> </ul>	<ul style="list-style-type: none"> <li>• Private trips limited to 50 boaters/day</li> <li>• Voluntary self registration</li> </ul>	<ul style="list-style-type: none"> <li>• Private trips limited to 50 boaters/day</li> <li>• Voluntary self registration</li> </ul>	<ul style="list-style-type: none"> <li>• Allow up to 100 private users/day</li> <li>• Voluntary self registration</li> </ul>
<b>Commercial rafting use limits</b>				
Special Recreation Permit (SRP) Allocation	<ul style="list-style-type: none"> <li>• Moratorium on new SRP's since 1996, 22 SRP's currently (2001)</li> </ul>	<ul style="list-style-type: none"> <li>• Allow a maximum of 22 SRP's</li> </ul>	<ul style="list-style-type: none"> <li>• Manage to reduce the number of SRP's to 18 through voluntary surrender, cancellation for nonuse, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• No upper limit on the number of SRP's</li> </ul>
Maximum number of trips per SRP holder per day	<ul style="list-style-type: none"> <li>• 2 trips/day/SRP</li> </ul>	<ul style="list-style-type: none"> <li>• 2 trips/day/SRP</li> </ul>	<ul style="list-style-type: none"> <li>• 1 trip/day/SRP</li> <li>• Second trip/day allocated to outfitters based on historical use during the peak period (July – August)</li> <li>• 2 trips/day/SRP outside of the July–August peak period</li> </ul>	<ul style="list-style-type: none"> <li>• 3 trips/day/SRP</li> </ul>
Maximum trip size limit	<ul style="list-style-type: none"> <li>• 30 passengers/trip</li> </ul>	<ul style="list-style-type: none"> <li>• 30 passengers/trip</li> </ul>	<ul style="list-style-type: none"> <li>• 30 passengers/trip</li> </ul>	<ul style="list-style-type: none"> <li>• 45 passengers/trip</li> </ul>

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Total commercial rafting daily use limits (thresholds for allocating use)	• 10 trips or 200 passengers total	• 10 trips or 200 passengers	• 10 trips or 200 passengers total on weekend days • 8 trips, 160 passengers total on weekdays	• 20 trips or 400 passengers total
Controls on commercial launch times		• Scheduled launch times during peak use periods if necessary and feasible	• Scheduled launch times during peak use periods if necessary and feasible	• Scheduled launch times during peak use periods if necessary and feasible
Monitoring		• Monitor use levels with BLM LAC or similar technique to determine if/when allocation is necessary	• Monitor use levels with BLM LAC or similar technique to determine if/when allocation is necessary	• Monitor use levels with BLM LAC or similar technique to determine if/when allocation is necessary
<b>Motorized boating/other technological advances</b>	• Motorized watercraft not prohibited (except personal watercraft)	• Motorized watercraft prohibited except by special use authorization (Oregon Marine Board)	• Motorized watercraft prohibited except by special use authorization (Oregon Marine Board)	• Motorized watercraft prohibited except by special use authorization in Segments 1 and 2; allow motorized boating in Segment 3 (River Access 1 boat launch to Stateline site)
<b>Visitor contact and management</b>	• Regular law enforcement, ODF fire and river patrols; current weekly river (raft) patrols and low frequency of vehicle patrols (BLM)	• Increase law enforcement and river patrols to enhance visibility, reduce vandalism, and enforce No Shooting zones; PacifiCorp assist with funding	• Decrease visitor contact and continue minimum patrols to enhance solitude and for those necessary to protect property and life	• Greatly increase law enforcement and river patrols; utilize onsite caretakers at Powerhouse site, Hoover Ranch and lower Frain Ranch; PacifiCorp assist with funding
<b>River flows: Bypass Reach (Segment 1)</b>	• None recommended; base flow insufficient for kayaking, except during spring high flow period.	• Recommend increased flow releases for fish migration (see Watershed Values section) would enhance whitewater kayaking (tie into FERC relicensing flow study)	• Recommended flows more closely resemble natural flows for fish, etc.; no specific recreation flow recommendation; recreation would adapt to increased base flows, enhancing whitewater kayaking opportunities	• Recommended increased flow releases for fisheries and kayaking would enhance kayaking opportunities (no peaking); disseminate flow information to boaters and fisherman (tie into FERC relicensing flow study)

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<b>River flows: Segments 2 and 3</b>	<ul style="list-style-type: none"> <li>Secure water rights claim for Segment 2 (1,500 cfs flow from Memorial Day to September 30) for recreation and scenic values; dialogue w/PacifiCorp on desired flow release schedule; and secure water rights for 625 cfs flow from April 1 through June 15 and 525 cfs for fisheries instream flow from June 16 through March 31</li> <li>Secure water rights to maintain both whitewater rafting and fishing recreational use, similar to the flow occurring at the time of wild and scenic river designation</li> </ul>	<ul style="list-style-type: none"> <li>Recommended modified run-of-the-river (stabilized) raftable and fishing flows below J.C. Boyle Powerhouse (Segments 2 and 3) (tie into FERC relicensing flow study); secure water rights for 1,500 cfs instream flow for recreation/scenic values from Memorial Day to September that provide for mid-morning launches to enhance whitewater rafting and provide flows that are less damaging to streamside vegetation and habitat to enhance fishing opportunities; secure water rights for 625 cfs for fisheries instream flow from April 1 through June 15 and 525 cfs from June 16 through March 31</li> </ul>	<ul style="list-style-type: none"> <li>Pursue river flows for recreation use to favor flows that are more conducive to fish habitat improvement and restoration of the river channel (no peaking—run of river operation); secure water rights for 1,500 cfs instream flow for recreation/scenic values from Memorial Day to September</li> <li>Secure water rights for 625 cfs for fisheries instream flow from April 1 through June 15 and 525 cfs from June 16 through March 31</li> </ul>	<ul style="list-style-type: none"> <li>Request PacifiCorp provide optimum (stabilized) raftable and fishing flows below J.C. Boyle Powerhouse (Segments 2 and 3) (tie into FERC relicensing flow study); pursue water flow releases to optimize whitewater rafting opportunities</li> <li>Secure water rights for 1,500 cfs instream flow for recreation/scenic values from Memorial Day to September</li> <li>Secure water rights for 625 cfs for fisheries instream flow from April 1 through June 15 and 525 cfs from June 16 through March 31</li> <li>Consistent flow levels allow for motorized boating opportunities in Segment 3 (tie into FERC relicensing flow study)</li> </ul>
<b>ROADS AND ACCESS</b>				
<b>Segment 1</b>				
Topsy Road T39S-R7E-Sections 31and 32; T40-R7E-Sections 6,7, and 18; BLM/PC)	<ul style="list-style-type: none"> <li>Spot improvements</li> </ul>	<ul style="list-style-type: none"> <li>Spot improvements</li> </ul>	<ul style="list-style-type: none"> <li>Spot improvements</li> </ul>	<ul style="list-style-type: none"> <li>Contiguous improvements</li> </ul>
Miscellaneous roads in Sections 1, 6, and 12, downstream from J.C. Boyle Dam (T40-R6E-Sections 6 and 12; BLM/PC)		<ul style="list-style-type: none"> <li>Administrative use; 2.2 miles; wildlife</li> </ul>	<ul style="list-style-type: none"> <li>Administrative use; 2.2 miles; wildlife</li> </ul>	
J.C. Boyle Dam Bridge (Klamath River crossing) (T40S-R6E-Section 6; PC)		<ul style="list-style-type: none"> <li>Recommend replacing bridge to allow motorized vehicle use</li> </ul>	<ul style="list-style-type: none"> <li>Recommend continuing to allow only nonmotorized use</li> </ul>	<ul style="list-style-type: none"> <li>Recommend replacing bridge to allow motorized vehicle use</li> </ul>
Powerhouse Road (Highway 66 to J.C. Boyle Powerhouse) (T40S-R6E-Sections 1,12,13 and 14; BLM/PC)	<ul style="list-style-type: none"> <li>PacifiCorp maintenance responsibility</li> </ul>	<ul style="list-style-type: none"> <li>Monthly summer maintenance</li> <li>Spot improvements</li> </ul>	<ul style="list-style-type: none"> <li>Monthly summer maintenance</li> <li>Spot improvements</li> </ul>	<ul style="list-style-type: none"> <li>Monthly summer maintenance</li> <li>Contiguous improvements</li> </ul>

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Canal Access Road (T40E-R6E- Sections 1, 6, and 12; BLM/PC)			• Administrative use; 2.2 miles	
Big Bend recreation site access road (T40S-R6E-Section 13; BLM)		• Construct new road (<0.1 miles) to access proposed recreation site		• Construct new road (<0.1 miles) to access proposed recreation site
<b>Segment 2 (NW of River)</b>				
Powerhouse Road (from J.C. Boyle Powerhouse to Klamath River Campground) (T40S-R6E- Sections 14,23,26,27; BLM)	• Minimum maintenance; hazard tree removal, rock slide removal	• Spot improvements (3.2 miles), including some resurfacing • Hazard tree removal, rock slide removal	• Install seasonal closure at Spring Island turn-around (3.2 miles, November 20–April 1) • Minimum maintenance; hazard tree removal, rock slide removal	• Road improvements (3.2 miles) to allow access in low clearance vehicles • Hazard tree removal, rock slide removal
Powerhouse Road (from Klamath River Campground to Caldera Rapid) T40S-R6E-Section 34; T41S-R6E- Sections 3 and 10; BLM/PC)	• Minimum maintenance; hazard tree removal, rock slide removal	• Spot improvements	• Seasonal closure (2.5 miles, November 20–April 1)	• Contiguous improvements (2.5 miles) to allow access in low clearance vehicles
Powerhouse Road (from Caldera Rapid to Hells Corner Overlook) (T41S-R6E-Sections 8, 9, and 10; BLM/PC)	• Minimum maintenance; hazard tree removal, rock slide removal	• Spot improvements	• Seasonal closure (1 mile, November 20–April 1)	• Spot improvements
Powerhouse Road (from Hells Corner Overlook to Chert Creek Meadow) (T41S-R6E-Sections 7 and 8; BLM/ PC)	• Seasonal closure (within the existing Pokegama Cooperative Closure)	• Seasonal closure (within the existing Pokegama Cooperative Closure)	• Seasonal closure (within the existing Pokegama Cooperative Closure)	• Seasonal closure (within the existing Pokegama Cooperative Closure)
Spring Island put-in access road and loop (T40S-R6E-Section 14; BLM)			• Seasonal closure 0.2 miles; wildlife; new seasonal/administrative closure	
Klamath Campground spur road (T40S-R6E-Section 26; BLM)		• Obliterate; north end of spur road (0.2 miles); restore riparian	• Decommission entire length of existing spur road (0.4 miles) • Construct approximately 0.2 miles of road outside of riparian reserve	• Contiguous improvements
Powerline access roads (T40S-R6E- Sections 27 and 34; T41S-R6E – Sections 3 and 9; BLM/PC)	• Administrative use; 2.7 miles; wildlife	• Administrative use; 2.7 miles; wildlife	• Administrative use; 2.7 miles; wildlife	
Klamath River Edge Road (T40S- R6E-Section 34; T41S-R6E-Section 3; BLM/PC)	• Obliterate; 1.3 miles, including about 0.8 miles of recontouring	• Obliterate; 1.3 miles, including about 0.8 miles of recontouring	• Obliterate; 1.3 miles, including about 0.8 miles of recontouring	• Spot improvements; reduce damage to wet meadows



<b>RESOURCE/PROGRAM Action/location</b>	<b>Alternative 1— No action (continue existing management)</b>	<b>Alternative 2— Enhancement/improvement of opportunities and resources</b>	<b>Alternative 3— Natural resource enhancement/ restoration</b>	<b>Alternative 4— Expand human use opportunities (enhance recreation/values)</b>
Klamath River Edge Road, north end connection to Powerhouse Road (T40S-R6E-Section 34; BLM)			• Obliterate; 0.3 miles; restore riparian	
Turtle Camp access roads T41S-R6E-Section 3; BLM)		• Construct approximately 0.2 miles of access roads to replace existing access (Klamath River Edge Road)		• Construct approximately 0.2 miles of access roads to replace existing access (Klamath River Edge Road)
Frain Ranch Area (northwest side) (T41S-R6E-Section 3; PC)	• Obliterate; 0.1 miles; restore riparian area impacted by user-created road	• Obliterate; 0.5 miles; restore riparian area impacted by user-created road	• Obliterate; 0.5 miles; restore riparian and protect cultural; all roads in vicinity	• Obliterate; 0.25 miles; restore riparian area impacted by user-created road
Caldera Rapid (west side) (T41S-R6E-Sections 3 and 10; PC/BLM)	• Obliterate; 0.1 miles; restore riparian; 250 feet of recontouring; conversion to trail	• Obliterate; 0.1 miles; restore riparian; 250 feet of recontouring; conversion to trail • Close remaining 0.3 miles of spur roads	• Obliterate; 0.1 miles; restore riparian; 250 feet of recontouring; conversion to trail • Close remaining 0.3 miles of spur roads	• Obliterate; 0.1 miles; restore riparian; 250 feet of recontouring; possible conversion to trail • Close remaining 0.3 miles of spur roads
Pokegama Cooperative road closure (includes multiple roads) (T41S-R5E-Sections 1,12, and 13; T41S-R6E-Sections 5,6,7,8, and 9; BLM/PC)	• Seasonal closure 11.1 miles; wildlife and road surface maintenance	• Seasonal closure 11.1 miles; wildlife and road surface maintenance	• Seasonal closure 11.1 miles; wildlife and road surface maintenance	• Seasonal closure 11.1 miles; wildlife and road surface maintenance
Salt Caves site access road (T41S-R6E-Sections 7 and 8; BLM)	• Obliterate; 0.9 miles; wildlife and hydrologic processes	• Obliterate; 0.9 miles; wildlife and hydrologic processes	• Obliterate; 0.9 miles; wildlife and hydrologic processes	• Obliterate; 0.9 miles; wildlife and hydrologic processes
Chert Creek southeast riparian parallel (NE of SW of Section 7) (T41S-R6E-Section 7; PC)		• Obliterate; 0.1 miles; wildlife and hydrologic processes	• Obliterate; 0.1 miles; wildlife and hydrologic processes	
Chert Creek Road (T41S-R5E-Section 12; T41S-R6E-Section 7; PC/BLM)	• Relocation; 0.9 miles; restore channel processes and riparian	• Obliterate; 1.2 miles; restore channel processes and riparian; includes 0.5 miles of recontouring	• Obliterate; 1.2 miles; restore channel processes and riparian; includes 0.5 miles of recontouring	• Relocation; 0.9 miles; restore channel processes and riparian;
Chert Creek east end alternate (T41S-R6E-Section 7; BLM)		• Obliterate; <0.1 miles; restore meadow; BLM and PacifiCorp, removal necessitates resurfacing of adjacent roads	• Obliterate; <0.1 miles; restore meadow; BLM and PacifiCorp, removal necessitates resurfacing of adjacent roads	• Obliterate; <0.1 miles; restore meadow; BLM and PacifiCorp, removal necessitates resurfacing of adjacent roads
NW of SW of Section 7, north/south road (T41S-R6E-Section 7; BLM)	• Obliterate; 0.25 miles	• Obliterate; 0.25 miles	• Obliterate; 0.25 miles	

RESOURCE/PROGRAM Action/location	Alternative 1— No action (continue existing management)	Alternative 2— Enhancement/improvement of opportunities and resources	Alternative 3— Natural resource enhancement/ restoration	Alternative 4— Expand human use opportunities (enhance recreation/values)
SW and SE of NW of Section 7, east/ west road (east end only) (T41S-R6E- Section 7; BLM)		• Contiguous Improvements; <0.1 miles; necessitated by removal of Chert Creek east end alternative	• Contiguous Improvements; <0.1 miles; necessitated by removal of Chert Creek east end alternative	• Contiguous Improvements; <0.1 miles; necessitated by removal of Chert Creek east end alternative
SW and SE of NW of Section 7, east/west road (remainder of length) (T41S-R6E-Section 7; BLM)				• Spot Improvements; 0.4 miles; access, sediment reduction; spot improvements on steep, rocky road
Tom Creek substation river access T41-R5E-Sections 12 and 13 BLM)		• Road Improvements; 0.5 miles; reduce runoff and gullyng; rafting takeout	• Obliterate; 0.5 miles; riparian restoration	• Road Improvements; 0.5 miles; reduce runoff and gullyng; rafting takeout
Section 1, spur road along west side of Hayden Creek (T41S-R5E-Section 1; BLM)		• Obliterate; 0.5 miles	• Obliterate; 0.5 miles	
Miscellaneous roads, Hayden subwatershed (T41-R5E-Section 1 and T41S-R6E-Section 6; BLM)	• Spot improvements to reduce runoff and gullyng	• Spot improvements to reduce runoff and gullyng	• Spot improvements to reduce runoff and gullyng	• Spot improvements to reduce runoff and gullyng
Hayden subwatershed, Section 12 north/south hookup road (T41S-R5E- Section 12; BLM/PC)		• Contiguous Improvements; 0.25 miles; access to Hoover Ranch and Tom Creek Substation if Chert Road is removed	• Contiguous Improvements; 0.25 miles; access to Hoover Ranch and Tom Creek Substation if Chert Road is removed	
Hoover Ranch to CA/OR state line (T41S-R5E-Section 12 and 13; BLM/ PC)	• Administrative use; 0.3 miles	• Administrative use; 0.3 miles	• Administrative use	• Seasonal closure; 0.3 miles
Miscellaneous roads on northwest side of river in Segment 2 (T41S- R6E-Sections 6,7,8,and 9; BLM/PC)			• Decommission; 0.5 miles; wildlife; spur roads along Powerhouse Road	
<b>Segment 2 (SE of River)</b>				
Topsy Road (including portions outside of planning area) (T41S-R6E- Sections 2,3,7,8,9, and 18; BLM/PC)	• Road improvements; spot improvements, varying extent includes 8.4 miles outside of planning area	• Road improvements; spot improvements, varying extent includes 8.4 miles outside of planning area	• Road improvements; spot improvements, varying extent includes 8.4 miles outside of planning area	• Road improvements; 16.6 miles; includes 8.4 miles outside of planning area
Picard Road (outside of planning area; BLM)	• Recommend Klamath County assume jurisdiction and maintenance responsibility	• Recommend Klamath County assume jurisdiction and maintenance responsibility		• Recommend Klamath County assume jurisdiction and maintenance responsibility

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Frain Ranch Bridge (Klamath River crossing) (T40S-R6E-Section 35; BLM)			<ul style="list-style-type: none"> <li>Decommission access road to bridge site (150 feet)</li> </ul>	<ul style="list-style-type: none"> <li>Construct bridge across river for administrative and motorized recreation access</li> </ul>
Frain Ranch area (T41S-R6E-Sections 3 and 10; BLM/PC)			<ul style="list-style-type: none"> <li>Seasonal closure (November 20–April 1) at Robber’s Rock</li> </ul>	
Section 35 Old Homestead Road (north of Frain Ranch) (T40S-R6E-Section 35; BLM)	<ul style="list-style-type: none"> <li>Obliterate; 1.0 miles; restore riparian and tributary channel processes; redundant road</li> </ul>	<ul style="list-style-type: none"> <li>Obliterate; 1.0 miles; restore riparian and tributary channel processes; redundant road</li> </ul>	<ul style="list-style-type: none"> <li>Obliterate; 1.0 miles; restore riparian and tributary channel processes; redundant road</li> </ul>	<ul style="list-style-type: none"> <li>Obliterate; 1.0 miles; restore riparian and tributary channel processes; redundant road</li> </ul>
Section 35 Road (T40S-R6E-Section 35; T41S-R6E-Section 3; BLM)			<ul style="list-style-type: none"> <li>Administrative use; 1.0 miles;</li> </ul>	
Campground access points along Old Homestead Road (T40S-R6E-Section 35; BLM)	<ul style="list-style-type: none"> <li>Road construction; 0.1 miles; access to replace obliterated road; riparian area</li> </ul>	<ul style="list-style-type: none"> <li>Road construction; 0.1 miles; access to replace obliterated road; riparian area</li> </ul>		<ul style="list-style-type: none"> <li>Road construction; 0.1 miles; access to replace obliterated road; riparian area</li> </ul>
North end of Frain Ranch (T41S-R6E-Section 3; PC/BLM)		<ul style="list-style-type: none"> <li>Decommission 0.75 miles of duplicate roads</li> <li>Construct approximately 0.2 miles of road to maintain motorized access through area</li> </ul>	<ul style="list-style-type: none"> <li>Decommission 0.75 miles of duplicate roads</li> <li>Construct approximately 0.2 miles of road to maintain motorized access through area</li> </ul>	
Lower Frain Ranch excess roads T41S-R6E-Section 3 and 10; PC/BLM)		<ul style="list-style-type: none"> <li>Obliterate; 1.45 miles; restore meadow, riparian</li> </ul>	<ul style="list-style-type: none"> <li>Obliterate; 1.45 miles; restore meadow, riparian</li> </ul>	<ul style="list-style-type: none"> <li>Obliterate; 0.35 miles; restore meadow, riparian</li> </ul>
Caldera Rapid (east side) T41S-R6E-Section 10; PC)	<ul style="list-style-type: none"> <li>Obliterate; 0.15 miles; restore meadow, riparian; south end of Frain Ranch</li> </ul>	<ul style="list-style-type: none"> <li>Obliterate; 0.15 miles; restore meadow, riparian; south end of Frain Ranch</li> </ul>	<ul style="list-style-type: none"> <li>Obliterate; 0.15 miles; restore meadow, riparian; south end of Frain Ranch</li> </ul>	<ul style="list-style-type: none"> <li>Obliterate; 0.15 miles; restore meadow, riparian; south end of Frain Ranch</li> </ul>
Rock Creek spur road (T41S-R6E-Sections 9 and 10; BLM/-State of Oregon)	<ul style="list-style-type: none"> <li>Administrative use; 0.65 miles; wildlife; address gullyng and road surface runoff</li> <li>Road improvements; spot improvements; reduce runoff and gullyng</li> </ul>	<ul style="list-style-type: none"> <li>Obliterate; 0.65 miles; reduce runoff and gullyng</li> </ul>	<ul style="list-style-type: none"> <li>Obliterate; 0.65 miles; reduce runoff and gullyng</li> </ul>	<ul style="list-style-type: none"> <li>Road improvements; spot improvements; reduce runoff and gullyng</li> </ul>
Rock Creek spur road (T41S-R6E-Section 10; State of Oregon)		<ul style="list-style-type: none"> <li>Administrative use; 0.9 miles; wildlife</li> </ul>	<ul style="list-style-type: none"> <li>Administrative use; 0.9 miles; wildlife</li> </ul>	

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Topsy Road at Rock Creek meadow (T41S-R6E-Section 9; BLM)	• Spot improvements; 0.1 miles; meadow restoration and obliteration of braided roads	• Spot improvements; 0.1 miles; meadow restoration and obliteration of braided roads	• Spot improvements; 0.1 miles; meadow restoration and obliteration of braided roads	• Contiguous improvements; 0.1 miles; meadow restoration and obliteration of braided roads
Rock Creek meadow braided roads (T41S-R6E-Section 9; BLM)	• Obliterate; 0.1 miles; restore meadow	• Obliterate; 0.1 miles; restore meadow	• Obliterate; 0.2 miles; restore meadow (includes more road length on private land)	• Obliterate; 0.1 miles; restore meadow
Spur roads (T41S-R6E-Sections 8 and 17; BLM)		• Decommission; 1.7 miles; wildlife and hydrologic processes; maintain access to private land in California via other roads	• Obliterate; 1.7 miles; wildlife and hydrologic processes; maintain access to private land in California via other roads	• Administrative use; 1.0 miles; wildlife
Wells Fargo diversion access (T41S- R5E- Sections 12 and 13; BLM)	• Administrative use; 0.15 miles	• Administrative use; 0.15 miles	• Administrative use; 0.15 miles	• Administrative use; 0.15 miles
<b>Segment 3</b>				
Segment 3 westside road (CA/OR state line to about 0.5 miles into Segment 3) (T48N-R3W-Section 15; PC)	• Administrative use; 0.5 miles; riparian and stream channel restoration; currently restricted access	• Administrative use; 0.5 miles; restore riparian and stream channel; (PacifiCorp)	• Administrative use; 0.5 miles; restore riparian and stream channel; (PacifiCorp)	• Seasonal closure; 0.5 miles
Segment 3 westside road (from Beswick Bridge to 0.5 miles south of OR/CA state line) (T48N-R3W- Sections 15, 22, 27; PC)	• Administrative use; 2.5 miles; (PacifiCorp), currently restricted access	• Administrative use; 2.5 miles; restore riparian/meadow; protect from OHV use; (PacifiCorp), currently restricted access	• Administrative use; 2.5 miles; restore riparian/meadow; protect from OHV use; (PacifiCorp), currently restricted access	• Administrative use; 2.5 miles; (PacifiCorp), currently restricted access
Access 6 access road (T48N-R3W- Section 22; PC)		• Contiguous improvements; 0.1 miles; recreation access	• Contiguous improvements; 0.1 miles; recreation access	• Contiguous improvements; 0.1 miles; recreation access
Hessig Ranch Road (T48N-R3W- Sections 22, 23, and 24; PC/BLM)	• Administrative Use	• Administrative Use	• Decommission; wildlife and road surface maintenance; (PacifiCorp and BLM), currently restricted access	• Administrative Use
Panther Canyon Overlook Road (T48N-R3W-Sections 26 and 27; PC)	• Administrative use; 1.7 miles; wildlife and road surface maintenance; currently restricted access	• Administrative use; 1.7 miles; wildlife and road surface maintenance; currently restricted access • Spot improvements; 1.7 miles; road surface maintenance and erosion control; install drainage features according to best management practices	• Administrative use; 1.7 miles; wildlife and road surface maintenance; currently restricted access • Spot improvements; 1.7 miles; road surface maintenance and erosion control; install drainage features according to best management practices	• Spot improvements; 1.7 miles; road surface maintenance and erosion control; install drainage features according to best management practices

RESOURCE/PROGRAM Action/location	Alternative 1— No action (continue existing management)	Alternative 2— Enhancement/improvement of opportunities and resources	Alternative 3— Natural resource enhancement/ restoration	Alternative 4— Expand human use opportunities (enhance recreation/values)
Shovel Creek Road (and spurs) T48N- R3W-Sections 27,34,35; PC)	• Administrative use	• Administrative use; relocate road away from riparian area; maintain access to diversions and powerline; obliterate unnecessary roads	• Administrative use; relocate road away from riparian area; maintain access to powerline; obliterate unnecessary roads	• Spot improvements; downstream from Negro Creek confluence; may be some realignment to move road away from stream; administrative use v/s from Negro Creek
Beswick Bridge (Klamath River crossing) (T48N-R3W-Sections 27; PC)	• Administrative use	• Administrative use	• Administrative use	• Administrative use
Shovel Creek Campground Access Road (T48N-R3W-Sections 27; PC)		• Road construction; approximately 0.5 miles to access campground		• Road construction; approximately 0.5 miles to access campground
<b>Stream crossing improvement</b>				
Powerhouse road springs (R40S-R6E- Section 23; BLM)	• Install culverts at 2 sites where road surface diverts flow paths	• Install culverts at 2 sites where road surface diverts flow paths	• Install culverts at 2 sites where road surface diverts flow paths	• Install culverts at 2 sites where road surface diverts flow paths
NE of NW of Section 8 stream crossing (R41S-R6E-Section 8; BLM)			• Install low water ford to accommodate hydrologic flow paths where stream intersects road	
Exclosure Meadow western stream crossing (R41S-R6E-Section 8; PC)			• 1 site; install low water ford to accommodate hydrologic flow paths downhill from meadow	
Chert Creek road crossings (R41S- R6E-Section 7; PC)		• 1 site; remove unnecessary upper crossing	• 2 sites; remove unnecessary upper crossing; enlarge lower culvert	
Chert Creek stream crossing (R41S- R5E-Section 12; PC)		• 2 sites; install low water crossing; to provide habitat connectivity	• Obliterate Tom Substation river access road to eliminate need for 2 stream crossings	• 2 sites; install low water crossing; to provide habitat connectivity
Hayden Creek (R41S-R5E-Section; BLM)		• Obliterate low water crossing	• Obliterate low water crossing	
Hayden Creek ((R41S-R5E-Section 13; BLM)		• Improve low water crossing	• Improve low water crossing	• Improve low water crossing

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Topsy Road and Frain access seep crossings (R41S-R6E-Section 10; BLM/PC)	• Install culverts at 3 sites where stream flows across road	• Install culverts at 3 sites where stream flows across road	• Install culverts at 3 sites where stream flows across road	• Install culverts at 3 sites where stream flows across road
Rock Creek Bridge (T41S-R6E-Section 9; BLM)	• Recommend retrofitting bridge to allow passage of 100-year floods and restore channel processes.	• Recommend retrofitting bridge to allow passage of 100-year floods and restore channel processes.	• Recommend retrofitting bridge to allow passage of 100-year floods and restore channel processes.	• Recommend retrofitting bridge to allow passage of 100-year floods and restore channel processes.
Major Spring meadow stream crossing (T40S-R6E-Section 35; BLM)	• Obliterate 1 stream crossing	• Obliterate 1 stream crossing	• Obliterate 1 stream crossing	• Obliterate 1 stream crossing
Frain Creek (T41S-R6E-Section 3; PC)	• 2 sites; install culverts to improve water quality and restore stream channel	• Obliterate road (0.1 miles) that crosses stream in 2 locations	• Obliterate road (0.1 miles) that crosses stream in 2 locations	• Obliterate road (0.1 miles) that crosses stream in 2 locations
Crayfish Creek (T41S-R6E-Section 10; PC)	• Obliterate 1 stream crossing to improve aquatic habitat connectivity	• Obliterate 1 stream crossing to improve aquatic habitat connectivity	• Obliterate 1 stream crossing to improve aquatic habitat connectivity	• Obliterate 1 stream crossing to improve aquatic habitat connectivity
Stateline take-out ditch seepage (T48N-R3W-Section 14; PC)		• 1 site; install culvert or divert to address cultural and access concerns	• 1 site; install culvert or divert to address cultural and access concerns	
Shovel/Negro Creek stream crossings (T48N-R3W-Section 34; PC)		• Improve 2 low water crossings along road parallel to Shovel Creek	• Improve 2 low water crossings along road parallel to Shovel Creek	• Improve 2 low water crossings along road parallel to Shovel Creek
Shovel Creek tributaries (T48N-R3W-Section 35; PC)		• Improve or obliterate 4 low water crossings along powerline access road	• Improve or obliterate 4 low water crossings along powerline access road	• Improve or obliterate 4 low water crossings along powerline access road
Bridge across mouth of Shovel Creek (T48N-R3W-Section 27; PC)	• Recommend enlarging bridge to allow passage of 100-year floods and restore channel processes	• Recommend enlarging bridge to allow passage of 100-year floods and restore channel processes	• Recommend enlarging bridge to allow passage of 100-year floods and restore channel processes	• Recommend enlarging bridge to allow passage of 100-year floods



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<b>CULTURAL RESOURCES</b>				
<i>Prehistoric</i>				
<b>Sites capped</b>	1 site • Site #35KL18 (PacifiCorp); preserve and protect site by covering it with soil and vegetation	1 site • Site #35KL18 (PacifiCorp); preserve and protect site by covering it with soil and vegetation	0 sites	2 sites • Site #35KL18 (PacifiCorp); preserve and protect site by covering it with soil and vegetation; and establish caretaker on site • Site #CA-Sis-1721/2646 (PacifiCorp); preserve and protect site by covering it with soil and vegetation
<b>Sites fenced</b>	0 sites	2 sites • Site #CA-Sis-1721/2646 (PacifiCorp); fence off the site and relocate camping area • Site #CA-Sis-2135 (BLM); construct approx. 0.25 mile fence with wings along the roadway (not an enclosure)	0 sites	1 site • Site #CA-Sis-2135 (BLM); construct approx. 0.25 mile fence with wings along the roadway (not an enclosure)
<b>Access controlled sites</b>	0 sites	1 site • Site #35KL20 (PacifiCorp); block off vehicle access to site by either establishing boulders, installing a gate, and/or erecting Area Closed signs	3 sites • Site #35KL18 (PacifiCorp); close area to motorized vehicles site by either establishing boulders, installing a gate, and/or erecting Area Closed signs • Site #CA-Sis-1721/2646 (PacifiCorp); close area o public use site by either establishing boulders, installing a gate, and/or erecting Area Closed signs • Site #35KL20 (PacifiCorp); block off vehicle access to site by either establishing boulders, installing a gate, and/or erecting Area Closed signs	0 sites
<b>Establish caretaker</b>	0 sites	0 sites	0 sites	1 site • Site #35KL18 (PacifiCorp); establish caretaker on site

RESOURCE/PROGRAM Action/location	Alternative 1— No action (continue existing management)	Alternative 2— Enhancement/improvement of opportunities and resources	Alternative 3— Natural resource enhancement/ restoration	Alternative 4— Expand human use opportunities (enhance recreation/values)
<b>Research</b>	1 project • Site #CA-Sis-16 (PacifiCorp); study and report on the excavated materials from the 1953 University of California excavation • Promotion of nonexcavation research	1 project • Site #CA-Sis-16 (PacifiCorp); study and report on the excavated materials from the 1953 University of California excavation • Promotion of nonexcavation research; excavation use only as a mitigation measure	1 project • Site #CA-Sis-16 (PacifiCorp); study and report on the excavated materials from the 1953 University of California excavation • Promotion of nonexcavation research; excavation use only as last resort mitigation measure	1 project • Site #CA-Sis-16 (PacifiCorp); study and report on the excavated materials from the 1953 University of California excavation • Excavation research not prohibited; excavation used as a mitigation tool
<b>Historic</b>				
<b>Sites documented</b>	10 sites • Record the site to meet HABS/HAER documentation standards. This documentation consists of - measured drawings, large-format photographs, and written history:  ~The Hoover 41 Ranch (Beak Field No. 38) (PacifiCorp) ~Beswick Complex (PacifiCorp) ~Hessig Ranch (CA-Sis-1838/H) (PacifiCorp) ~Truitt Saloon (PacifiCorp) ~Topsy School House (ORKL84) (BLM) ~Topsy Road (Beak Field No. 43) ~Frain Ranch (Beak Field No. 21) (PacifiCorp) ~Truitt Ranch (PacifiCorp) ~Slaughter House (PacifiCorp) ~Fred's Cabin (PacifiCorp)	10 sites • Record the site to meet HABS/HAER documentation standards. This documentation consists of measured drawings, large-format photographs, and written history:  • ~The Hoover 41 Ranch (Beak Field No. 38) (PacifiCorp) ~Beswick Complex (PacifiCorp) ~Hessig Ranch (CA-Sis-1838/H) (PacifiCorp) ~Truitt Saloon (PacifiCorp) ~Topsy School House (ORKL84) (BLM) ~Topsy Road (Beak Field No. 43) ~Frain Ranch (Beak Field No. 21) (PacifiCorp) ~Truitt Ranch (PacifiCorp) ~Slaughter House (PacifiCorp) ~Fred's Cabin (PacifiCorp)	10 sites • Record the site to meet HABS/HAER documentation standards. This documentation consists of measured drawings, large-format photographs, and written history:  • ~The Hoover 41 Ranch (Beak Field No. 38) (PacifiCorp) ~Beswick Complex (PacifiCorp) ~Hessig Ranch (CA-Sis-1838/H) (PacifiCorp) ~Truitt Saloon (PacifiCorp) ~Topsy School House (ORKL84) (BLM) ~Topsy Road (Beak Field No. 43) ~Frain Ranch (Beak Field No. 21) (PacifiCorp) ~Truitt Ranch (PacifiCorp) ~Slaughter House (PacifiCorp) ~Fred's Cabin (PacifiCorp)	10 sites • Record the site to meet HABS/HAER documentation standards. This documentation consists of measured drawings, large-format photographs, and written history:  • ~The Hoover 41 Ranch (Beak Field No. 38) (PacifiCorp) ~Beswick Complex (PacifiCorp) ~Hessig Ranch (CA-Sis-1838/H) (PacifiCorp) ~Truitt Saloon (PacifiCorp) ~Topsy School House (ORKL84) (BLM) ~Topsy Road (Beak Field No. 43) ~Frain Ranch (Beak Field No. 21) (PacifiCorp) ~Truitt Ranch (PacifiCorp) ~Slaughter House (PacifiCorp) ~Fred's Cabin (PacifiCorp)

RESOURCE/PROGRAM Action/location	Alternative 1— No action (continue existing management)	Alternative 2— Enhancement/improvement of opportunities and resources	Alternative 3— Natural resource enhancement/ restoration	Alternative 4— Expand human use opportunities (enhance recreation/values)
Sites stabilized	0 sites	<p>3 sites</p> <ul style="list-style-type: none"> <li>• Stabilize Hoover 41 Ranch House (Beak Field No. 38) (PacifiCorp) by repairing the foundation skirt; replacing exterior steps for liability purposes; replacing the windows and doors; repair ceilings in bedrooms, bathroom and kitchen; patch fireplace holes; replacing the shingle roof with a metal roof; remove metal fence around structure; and hazardous material removal. The roof is the priority.</li> <li>• Stabilize the Community Hall at Beswick Complex (PacifiCorp) by patching the roof and repairing the leak damage in the back room.</li> <li>• Stabilize Truitt Saloon (PacifiCorp) by replacing half of the back wall; fixing the porch; replace south window and front window panels; patch holes on inside walls; replace furring strips on outside walls; clear vegetation and dirt from sides of building.</li> </ul>	<p>2 sites</p> <ul style="list-style-type: none"> <li>• Stabilize the Community Hall at Beswick Complex (PacifiCorp) by patching the roof and repairing the leak damage in the back room.</li> <li>• Stabilize Truitt Saloon (PacifiCorp) by temporarily covering the holes along the back wall with boards and digging out the dirt that has accumulated along the outside of the back wall</li> </ul>	<p>3 sites</p> <ul style="list-style-type: none"> <li>• Stabilize Hoover 41 Ranch House (Beak Field No. 38) (PacifiCorp) by repairing the foundation skirt; replacing exterior steps for liability purposes; replacing the windows and doors; repair ceilings in bedrooms, bathroom and kitchen; patch fireplace holes; replacing the shingle roof with a metal roof; remove metal fence around structure; and hazardous material removal. The roof is the priority.</li> <li>• Stabilize the Community Hall at Beswick Complex (PacifiCorp) by patching the roof and repairing the leak damage in the back room.</li> <li>• Stabilize Truitt Saloon (PacifiCorp) by replacing half of the back wall; fixing the porch; replace south window and front window panels; patch holes on inside walls; replace furring strips on outside walls; clear vegetation and dirt from sides of building.</li> </ul>

RESOURCE/PROGRAM Action/location	Alternative 1— No action (continue existing management)	Alternative 2— Enhancement/improvement of opportunities and resources	Alternative 3— Natural resource enhancement/ restoration	Alternative 4— Expand human use opportunities (enhance recreation/values)
<b>Sites rehabilitated</b>	0 sites	2 sites <ul style="list-style-type: none"> <li>• The Hoover 41 Ranch Root Cellar (Beak Field No. 38) (PacifiCorp); rehabilitate the double-walled cellar by removing lichen off the logs and removing vegetation from between the double walls and around the exterior</li> <li>• Frain Ranch (Beak Field No. 21) (PacifiCorp); rehabilitate the Frain main cabin by spraying the logs with preservatives to protect them from further rodent damage</li> </ul>	4 sites <ul style="list-style-type: none"> <li>• Frain Ranch (Beak Field No. 21) (PacifiCorp); rehabilitate the Frain main cabin by spraying the logs with preservatives to protect them from further rodent damage</li> <li>• The Hoover 41 Ranch Root Cellar (Beak Field No. 38) (PacifiCorp); rehabilitate the double-walled cellar by removing lichen off the logs and removing vegetation from between the double walls and around the exterior</li> <li>• Stabilize Hoover 41 Ranch House (Beak Field No. 38) (PacifiCorp) by repairing the foundation skirt; replacing exterior steps for liability purposes; replacing the windows and doors; repair ceilings in bedrooms, bathroom and kitchen; patch fireplace holes; replacing the shingle roof with a metal roof; remove metal fence around structure; and hazardous material removal. The roof is the priority.</li> <li>• Beswick Complex (PacifiCorp); rehabilitate the Maid Quarters by replacing the shingle roof with a metal roof; replace back siding; replace foundation supports; repair the floors, repair windows and doors, replace exterior steps; divert spring water around building; clear shrubs from around structure</li> <li>• Hessig Ranch (CA-Sis-1838/H) (PacifiCorp); rehabilitate the Ranch Squeeze Stall, Chutes, and Fences by replacing broken elements with modern duplicates of the original element</li> <li>• Hessig Ranch (CA-Sis-1838/H) (PacifiCorp); rehabilitate the Ranch Barn by replacing the broken door panels</li> <li>• Frain Ranch (Beak Field No. 21) (PacifiCorp); rehabilitate the Frain main cabin by spraying the logs with preservatives to protect them from further rodent damage</li> </ul>	4 sites <ul style="list-style-type: none"> <li>• The Hoover 41 Ranch Root Cellar (Beak Field No. 38) (PacifiCorp); rehabilitate the Double-Walled cellar by removing lichen off the logs and removing vegetation from between the double walls and around the exterior</li> <li>• Beswick Complex (PacifiCorp); rehabilitate the Maid Quarters by replacing the shingle roof with a metal roof; replace back siding; replace foundation supports; repair the floors, repair windows and doors, replace exterior steps; divert spring water around building; clear shrubs from around structure</li> <li>• Hessig Ranch (CA-Sis-1838/H) (PacifiCorp); rehabilitate the Ranch Squeeze Stall, Chutes, and Fences by replacing broken elements with modern duplicates of the original element</li> <li>• Hessig Ranch (CA-Sis-1838/H) (PacifiCorp); rehabilitate the Ranch Barn by replacing the broken door panels</li> <li>• Frain Ranch (Beak Field No. 21) (PacifiCorp); rehabilitate the Frain main cabin by spraying the logs with preservatives to protect them from further rodent damage</li> </ul>
<b>Sites signed</b>	1 site	0 sites	0 sites	0 sites

RESOURCE/PROGRAM Action/location	Alternative 1— No action (continue existing management)	Alternative 2— Enhancement/improvement of opportunities and resources	Alternative 3— Natural resource enhancement/ restoration	Alternative 4— Expand human use opportunities (enhance recreation/values)
<b>Research</b>	1 project <ul style="list-style-type: none"> <li>• Historic overview document from J.C. Boyle to Copco; contract with qualified historian</li> <li>• Promotion of nonexcavation research</li> </ul>	1 project <ul style="list-style-type: none"> <li>• Historic overview document from J.C. Boyle to Copco; contract with qualified historian</li> <li>• Promotion of nonexcavation research; excavation use only as last resort mitigation measure</li> </ul>	1 project <ul style="list-style-type: none"> <li>• Historic overview document from J.C. Boyle to Copco; contract with qualified historian</li> <li>• Promotion of nonexcavation research; excavation use only as last resort mitigation measure</li> </ul>	1 project <ul style="list-style-type: none"> <li>• Historic overview document from J.C. Boyle to Copco; contract with qualified historian</li> <li>• Excavation research not prohibited; excavation used as a mitigation tool</li> </ul>
<i>Native American Traditional Use</i>				
<b>Research</b>	1 project <ul style="list-style-type: none"> <li>• Ethnobotanical study from J.C. Boyle to Copco; contract with qualified ethnobotanist(s)</li> </ul>	1 project <ul style="list-style-type: none"> <li>• Ethnobotanical study from J.C. Boyle to Copco; contract with qualified ethnobotanist(s)</li> </ul>	1 project <ul style="list-style-type: none"> <li>• Ethnobotanical study from J.C. Boyle to Copco; contract with qualified ethnobotanist(s)</li> </ul>	1 project <ul style="list-style-type: none"> <li>• Ethnobotanical study from J.C. Boyle to Copco; contract with qualified ethnobotanist(s)</li> </ul>
<i>Miscellaneous</i>	2 projects <ul style="list-style-type: none"> <li>• Evaluate the canyon as a historical archaeological district or cultural landscape and complete a registration form</li> <li>• Class III inventories (100 percent survey); inventory of all unsurveyed BLM lands not tied to projects</li> </ul>	1 project <ul style="list-style-type: none"> <li>• Evaluate the canyon as a historical archaeological district or cultural landscape and complete a registration form</li> <li>• Class III inventories (100 percent survey); inventory of all unsurveyed BLM lands not tied to projects and resurvey areas that do not meet current Class III survey standards on BLM lands</li> <li>• Nominate Topsy Road (Beak Field No. 43) as national historic trail; work with private landowners in county</li> </ul>	1 project <ul style="list-style-type: none"> <li>• Evaluate the canyon as a historical archaeological district or cultural landscape and complete a registration form</li> <li>• Class III Inventories (100 percent survey); inventory of all unsurveyed BLM Lands not tied to projects and resurvey areas that do not meet current Class III survey standards on BLM lands; survey unsurveyed high probability areas on PacifiCorp lands not tied to projects</li> <li>• Nominate Topsy Road (Beak Field No. 43) as national historic trail; work with private landowners in county</li> </ul>	1 project <ul style="list-style-type: none"> <li>• Evaluate the canyon as a historical archaeological district or cultural landscape and complete a registration form</li> <li>• Class III Inventories (100 percent survey); inventory of all unsurveyed BLM Lands not tied to projects and resurvey areas that do not meet current Class III survey standards on BLM lands; survey unsurveyed high probability areas on PacifiCorp lands not tied to projects</li> <li>• Nominate Topsy Road (Beak Field No. 43) as national historic trail; work with private landowners in county</li> </ul>

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<b>VEGETATION/BIODIVERSITY</b>				
<i>Special Status Plants</i>	<ul style="list-style-type: none"> <li>Inventories for special status plants would be conducted before ground-disturbing activities and known sites protected or managed according to appropriate guidelines</li> </ul>	<ul style="list-style-type: none"> <li>Inventories for special status plants would be conducted before ground-disturbing activities and known sites protected or managed according to appropriate guidelines; systematic inventories of planning area would be conducted</li> </ul>	<ul style="list-style-type: none"> <li>Inventories for special status plants would be conducted before ground-disturbing activities and known sites protected or managed according to appropriate guidelines; systematic inventories of planning area would be conducted</li> </ul>	<ul style="list-style-type: none"> <li>Inventories for special status plants would be conducted before ground-disturbing activities and known sites protected or managed according to appropriate guidelines</li> </ul>
<i>Noxious Weeds</i>				
<b>Inventory</b>	<ul style="list-style-type: none"> <li>Systematic inventory of planning area to support integrated noxious weed management</li> </ul>	<ul style="list-style-type: none"> <li>Systematic inventory of planning area to support integrated noxious weed management; post project inventory of areas disturbed by vegetation management actions</li> </ul>	<ul style="list-style-type: none"> <li>Systematic inventory of planning area to support integrated noxious weed management; post project inventory of areas disturbed by vegetation management actions</li> </ul>	<ul style="list-style-type: none"> <li>Systematic inventory of planning area to support integrated noxious weed management; periodic inventory of high use recreation sites</li> </ul>
<b>Education</b>		<ul style="list-style-type: none"> <li>Interpretive signs would be placed in high use recreation areas for weed awareness/prevention</li> </ul>		<ul style="list-style-type: none"> <li>Interpretive signs in high use recreation areas for weed awareness/prevention; interpretive brochures available in high use recreation areas</li> </ul>
<b>Treatment</b>	<ul style="list-style-type: none"> <li>Chemical, manual, mechanical, and biological control methods would be used</li> </ul>	<ul style="list-style-type: none"> <li>Chemical, manual, mechanical, and biological control methods would be used</li> </ul>	<ul style="list-style-type: none"> <li>Chemical, manual, mechanical, and biological control methods would be used</li> </ul>	<ul style="list-style-type: none"> <li>Chemical, manual, mechanical, and biological control methods would be used</li> </ul>
<i>Vegetation Treatments (acres/decade)</i>	1,171 acres/decade	4,510 acres/decade	6,958 acres/decade	4,580 acres/decade
<b>Conifer forest and woodland</b>	<ul style="list-style-type: none"> <li>Treatments limited to fuel reduction, especially in areas with other resource emphasis; prescribed fire used only when unit is randomly selected (BLM, 557 acres)</li> </ul>	<ul style="list-style-type: none"> <li>Thin stands on lower slopes to sustainable levels to improve forest health; prescribed fire used in random selections as well as priority units (BLM, 1,238 acres; PacifiCorp, 305 acres)</li> </ul>	<ul style="list-style-type: none"> <li>Thin all stands to sustainable levels, favoring ponderosa pine but maintaining a mix of species and size classes; fuel reduction treatment would be applied to all stands; prescribed fire would be a primary tool, especially on slopes &gt;35 percent (BLM, 1,638 acres; PacifiCorp, 925 acres)</li> </ul>	<ul style="list-style-type: none"> <li>Thin all stands as under Alternative 2, with priority to areas adjacent to recreation sites, river corridor, trails, and roads; fuel reduction would be the same as under Alternative 2 (BLM, 1,277 acres; PacifiCorp, 429 acres)</li> </ul>



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<b>Dense oak woodlands</b>	• Thinning of a few oak stands would increase growth and mast (acorn) production; prescribed fire would be used to reduce fuel loads in thinned stands (BLM, 115 acres)	• Additional oak thinning would increase growth and mast (acorn) production; prescribed fire would be used to reduce fuel loads in thinned stands (BLM, 115 acres; PacifiCorp, 99 acres)	• All oak woodlands would be thinned; all oak woodlands would be burned to reduce fuel loads (BLM, 286 acres; PacifiCorp, 115 acres)	• Oak woodlands would be thinned as under Alternative 2, with priority to areas adjacent to recreation facilities, river corridor, and roads; fuel reduction would be the same as under Alternative 2 (BLM, 115 acres; PacifiCorp, 72 acres)
<b>Open oak woodlands</b>	• Thinning of a few oak stands would increase growth and mast (acorn) production; prescribed fire would be used to reduce fuel loads in thinned stands (BLM, 299 acres)	• Additional oak thinning would increase growth and mast (acorn) production; prescribed fire would be used to reduce fuel loads in thinned stands (BLM, 608 acres, PacifiCorp, 372)	• All oak woodlands would be thinned; all oak woodlands would be burned to reduce fuel loads (BLM, 723; USFS, 20 acres; PacifiCorp, 631 acres)	• Oak woodlands would be thinned as under Alternative 3, with priority to areas adjacent to recreation facilities, river corridor, and roads; fuel reduction would be the same as under Alternative (BLM, 616 acres; PacifiCorp 520 acres)
<b>Juniper woodlands</b>	• Cut young, invasive juniper in priority areas and around springs (BLM, 0 acres)	• Cut invasive juniper as under Alternative 1, plus cut juniper around individual pine trees (BLM, 0 acres)	• Cut all invasive juniper; retain and protect old growth juniper trees (BLM, 0 acres)	• Cut all invasive juniper in areas of recreation sites (BLM, 0 acres)
<b>Mixed shrubfields</b>	• Shrub and browse species would be treated along with oak treatments (BLM, 1,330 acres)	• South and west slopes would be priority to treat to rejuvenate shrubs for browse (BLM, 538 acres; PacifiCorp, 367 acres)	• All shrubfields would be treated to rejuvenate for big game browse; use mechanical or prescribed fire, especially in wedgeleaf ceanothus (BLM, 700 acres; PacifiCorp, 644 acres)	• Same as under Alternative 2 (BLM, 538 acres; PacifiCorp 537 acres)
<b>Rabbitbrush/sagebrush</b>	• Shrub and browse species would be treated along with oak treatments (BLM, 0 acres)	• South and west slopes would be priority to treat to rejuvenate shrubs for browse (BLM, 12 acres; PacifiCorp, 3 acres)	• All shrubfields would be treated to rejuvenate for big game browse; use mechanical or prescribed fire, especially in wedgeleaf ceanothus (BLM, 52 acres; PacifiCorp 203 acres)	• Same as under Alternative 3 (BLM, 114 acres; PacifiCorp, 65 acres)
<b>Dry meadow</b>	(BLM, 63 acres)	(BLM, 215 acres; PacifiCorp 46 acres)	(BLM, 215 acres; USFS, 1 acre; PacifiCorp 103 acres)	(BLM, 215 acres; PacifiCorp 46 acres)
<b>Irrigated meadow</b>		• Manage 370 acres for native habitats; apply principles of adaptive management to achieve vegetation management and wildlife habitat objectives; options include some use of existing irrigation diversions (BLM, 0 acres; PacifiCorp, 370 acres)	• Manage 370 acres for native habitats; apply principles of adaptive management to achieve vegetation management and wildlife habitat objectives; options include some use of existing irrigation diversions (BLM, 0 acres; PacifiCorp, 374 acres)	• Use fencing/obstructions to protect from OHV use (BLM, 0 acres; PacifiCorp, 0 acres)

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<b><i>Riparian Restoration (proposed and recommended)</i></b>	• BLM, 7 acres; PacifiCorp 11 acres	• BLM, 30 acres; PacifiCorp, 166 acres	• BLM, 44 acres; PacifiCorp, 245 acres; other private, 5 acres	• BLM, 9 acres; PacifiCorp, 22 acres
<b>Vegetation Treatments</b>				
Hayden Creek riparian restoration		• Vegetation treatments (approximately 3 acres) within the riparian reserve of Hayden Creek will be designed to restore the distribution of riparian vegetation communities	• Vegetation treatments (approximately 8 acres) within the riparian reserve of Hayden Creek will be designed to restore and maintain the distribution and composition of riparian vegetation communities	
Shovel Creek		• Vegetation treatments (approximately 155 acres) within portions of the riparian reserves of Shovel and Negro Creeks will be designed as needed to meet desired future conditions for riparian habitat and large wood recruitment	• Conifer planting on abandoned skid trails to ensure course woody debris recruitment (3 acres); Vegetation treatments (approximately 170 acres) within riparian reserves of Shovel and Negro Creeks will be designed as needed to meet desired future conditions for riparian habitat and large wood recruitment	
<b>Meadow restoration</b>				
Restore riparian habitat by decommissioning roads	About 1.5 acres: Crazy 8 Spring, Big Alder	About 1.5 acres: Crazy 8 Spring, Big Alder	About 4 acres: Crazy 8 Spring, Big Alder, Racer Meadow, and Boulder Spring	About 1.5 acres: Crazy 8 Spring, Big Alder
Restore riparian habitat by constructing exclosures	About 3 acres: Racer Meadow and Boulder Spring	About 3 acres: Racer Meadow and Boulder Spring	About 1 acre: Hoover Springs	About 3 acres: Racer Meadow and Boulder Spring
Restore riparian habitat by decommissioning roads and constructing exclosures	About 10 acres: Rock Creek Meadow, Major Spring, Crayfish Meadow	About 12 acres: Rock Creek Meadow, Major Spring, Crayfish Meadow, and Lower Frain	About 15 acres: Rock Creek Meadow, Major Spring, Crayfish Meadow, and Lower Frain	About 12 acres: Rock Creek Meadow, Major Spring, Crayfish Meadow, and Lower Frain
Restore riparian habitat by decommissioning roads, constructing exclosures, vegetation treatments, and/or stream restoration	No action	About 33 acres: Exclosure Meadow, Hayden Creek Meadow, Hayden Springs, and Frain Ranch	About 42 acres: Exclosure Meadow, Middle Chert Creek, Upper Chert Creek, Hayden Creek Meadow, Hayden Springs, and Frain Ranch	About 2 acres: Frain Ranch

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Revegetation on roads removed from riparian reserves	• About 7 acres/4 miles along Klamath River and Chert Creek	• About 11 acres/6 miles along Klamath River, Chert Creek, and Shovel Creek	• About 14 acres/7 miles along Klamath River, Chert Creek, and Shovel Creek	• About 9 acres/5 miles along Klamath River, Chert Creek, and Shovel Creek
<b>Conifer, willow, and sedge/rush planting in riparian areas</b>				
Revegetation at J.C. Boyle housing site			• Approximately 3 acres	
Revegetation adjacent to J.C. Boyle Powerhouse			• Approximately 0.7 acres at the site of facilities immediately adjacent to the Klamath River	
Revegetation in coordination with channel restoration activities		• See Aquatic Species/Habitat for details on the extent of these actions	• See Aquatic Species/Habitat for details on the extent of these actions	• See Aquatic Species/Habitat for details on the extent of these actions
Riparian restoration adjacent to sidecast in Segment 1		• See Aquatic Species/Habitat for details on the extent of these actions	• See Aquatic Species/Habitat for details on the extent of these actions	
Willow enhancement projects		• Plant cuttings at likely sites along Klamath River	• Plant cuttings at likely sites along Klamath River	
<b>Blackberry/reed canarygrass control</b>		• Shovel Creek and portions of the river in Segment 3; burn, mow, or utilize other nonchemical treatments, possibly followed by planting of native species	• Shovel Creek and portions of the river in Segment 3; burn, mow, or utilize other nonchemical treatments, possibly followed by planting of native species	
<b>SOIL RESOURCES</b>				
<i>Soil Monitoring</i>	• Quantitatively monitor 20% of resource area ground disturbing projects including those within planning area or 1,171 acres/decade	• Quantitatively monitor 20% of resource area ground disturbing projects including those within planning area or 4,510 acres/ decade	• Quantitatively monitor 20% of resource area ground disturbing projects including those within planning area or 6,958 acres/ decade	• Quantitatively monitor 20% of resource area ground disturbing projects including those within planning area or 4,580 acres/decade

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<b>TERRESTRIAL SPECIES/ HABITAT</b>				
<i>Structural work</i>				
<b>Roads</b>				
Closures	<ul style="list-style-type: none"> <li>• Reduce open roads to 1.5 miles/section through closures that can be implemented during other management activities (currently road density is 3.36+)</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce open roads to 1.5 miles/section through an active closure program not necessarily associated with other activities</li> </ul>	<ul style="list-style-type: none"> <li>• Close all roads except those needed for daily management access</li> </ul>	<ul style="list-style-type: none"> <li>• Road closures only used when needed to reduce disturbance to special status species or under cooperative agreements</li> </ul>
Improvements (see Watershed Values section)	<ul style="list-style-type: none"> <li>• Spot improvements to improve drainage or to direct traffic flow</li> </ul>	<ul style="list-style-type: none"> <li>• Road improvements in meadow areas or to enhance wildlife movements</li> </ul>	<ul style="list-style-type: none"> <li>• Road obliteration; improvements only when needed to improve drainage or management after road closures</li> </ul>	<ul style="list-style-type: none"> <li>• Major improvements to improve traffic flow, speed, and protect wildlife</li> </ul>
<b>Buildings</b>	<ul style="list-style-type: none"> <li>• Add wildlife friendly perches, nest boxes, etc., to existing structures; work on private lands when requested</li> </ul>	<ul style="list-style-type: none"> <li>• Work cooperatively with private landowners to install wildlife habitat on private structures; renovate hydroelectric facilities to improve wildlife movement and habitat</li> <li>• Old buildings and bridges could be modified for nest structures</li> </ul>	<ul style="list-style-type: none"> <li>• Remove recreation structures that pose threats to wildlife (such as Klamath River Campground)</li> </ul>	<ul style="list-style-type: none"> <li>• Design platforms and structures on buildings for birds, bats, and other wildlife</li> </ul>
<b>Powerlines</b>	<ul style="list-style-type: none"> <li>• Raptor proof powerlines when and where problems are documented</li> </ul>	<ul style="list-style-type: none"> <li>• Raptor proof and modify powerpoles; install nesting/perching structures for osprey, goose nests, and blue birds, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Support burial of all distribution powerlines or removal from the scenic corridor</li> </ul>	<ul style="list-style-type: none"> <li>• Raptor proof and modify powerpoles; install nesting/perching structures for osprey, goose nests, and blue birds, etc.</li> </ul>
<i>Species management</i>				
<b>Eagles</b>	<ul style="list-style-type: none"> <li>• Manage riparian forest communities for existing and potential nest and roost trees; manual thinning and fuels reductions around selected large mature trees (Douglas fir or pine)</li> <li>• Develop potential nest trees by pruning branches to create openings in the canopy and using natural materials</li> </ul>	<ul style="list-style-type: none"> <li>• Manage riparian forest communities for existing and potential nest and roost trees; more aggressive treatments (manual, mechanical, fire, etc.) around the selected trees; more trees and selection of potential future trees</li> <li>• Develop potential nest trees by pruning branches to create openings in the canopy and using natural materials</li> </ul>	<ul style="list-style-type: none"> <li>• Manage riparian forest communities for existing and potential nest and roost trees; more aggressive treatments (manual, mechanical, fire etc) around the selected trees; more trees and selection of potential future trees; use mechanized equipment to remove competing trees to reduce stress on large diameter trees</li> <li>• Manage Forest communities to maintain options for natural creation of nest structures and perch trees</li> </ul>	<ul style="list-style-type: none"> <li>• Manage riparian forest communities for existing and potential nest and roost trees; thinning around large trees when it would not conflict with the recreational activities or visual requirements</li> <li>• Develop potential nest trees by pruning branches and placing artificial structures</li> </ul>

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<b>Spotted owls</b>	<ul style="list-style-type: none"> <li>• Maintain existing nesting/foraging/roosting and dispersal habitat</li> </ul>	<ul style="list-style-type: none"> <li>• Treat some nesting/foraging/roosting stands to improve health but maintain nesting/foraging/roosting</li> </ul>	<ul style="list-style-type: none"> <li>• Return stands to historic (more natural) conditions; this may result in the loss of some nesting/foraging/roosting but will retain the dispersal habitat</li> </ul>	<ul style="list-style-type: none"> <li>• Treat some nesting/foraging/roosting stands to improve health but maintain nesting/foraging/roosting</li> </ul>
<b>Peregrine falcons</b>	<ul style="list-style-type: none"> <li>• Monitor historic nest site during nest seasons</li> </ul>	<ul style="list-style-type: none"> <li>• Monitor all cliff areas in the canyon periodically throughout the year</li> <li>• Use a hack site to release peregrines and return them to the area</li> </ul>	<ul style="list-style-type: none"> <li>• Conduct stand treatments beneath cliff areas to improve visibility and hunting opportunities for peregrines; (remove selected trees to create a more open stand structure and a more effective hunting area)</li> </ul>	<ul style="list-style-type: none"> <li>• Use a hack site to release peregrines for public visibility</li> </ul>
<b>Osprey</b>	<ul style="list-style-type: none"> <li>• Monitor existing sites, top tree, or create nest sites in unseen areas or visibly acceptable areas using natural materials</li> </ul>	<ul style="list-style-type: none"> <li>• Create nest sites throughout the river canyon by topping/blasting trees and building nests from natural materials (limbs, boughs, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>• Manage timber stands to maintain options for natural creation of nest structures</li> </ul>	<ul style="list-style-type: none"> <li>• Create nest structures through topping of trees, building artificial platforms in trees, and modifying powerpoles</li> </ul>
<b>Waterfowl</b>	<ul style="list-style-type: none"> <li>• Maintain existing duck nest boxes</li> </ul>	<ul style="list-style-type: none"> <li>• Repair and replace existing nest boxes; add new boxes to important waterfowl areas</li> <li>• Improve riparian areas to provide brood-rearing areas that provide forage and cover; meadow areas adjacent to the river should be managed for adequate residual cover for ground nesting waterfowl</li> </ul>	<ul style="list-style-type: none"> <li>• As nest boxes decay, remove them from area; create artificial nest sites by boring cavities in large trees</li> </ul>	<ul style="list-style-type: none"> <li>• Maximize use of duck boxes in all areas; install goose nest structures in meadow habitat</li> <li>• Improve riparian areas to provide brood rearing areas that provide forage and cover; meadow areas adjacent to the river should be managed for adequate residual cover for ground nesting waterfowl</li> </ul>
<b>Turkeys</b>	<ul style="list-style-type: none"> <li>• Improve mast crops through thinning and or burning of oak stands in unseen areas</li> <li>• Meadow restoration through burning and /or seeding</li> </ul>	<ul style="list-style-type: none"> <li>• Improve mast crops in oak stands throughout the canyon area (800 acres in 10 years) 50 percent would be in pine/juniper vegetation types</li> <li>• Meadow restoration through irrigation of meadows (may involve use of some abandoned irrigation systems)</li> <li>• Develop food plots for winter areas using mainly native species</li> <li>• Manage roost areas through fuel reduction and thinning around roost sites</li> <li>• Use transplanting to disperse the population</li> </ul>	<ul style="list-style-type: none"> <li>• Maximize habitat management in all oak areas in the canyon within the next 10 years (2,000 acres); also thin around large oaks in timber stands</li> <li>• Maintain irrigation systems in meadow areas to retain the wet meadow habitats for brood rearing, passive irrigation preferred</li> <li>• Develop roost areas through thinning and pruning of pine stands</li> </ul>	<ul style="list-style-type: none"> <li>• Improve mast crops in oak stands throughout the canyon area (800 acres in next decade); 50 percent would be in pine/juniper vegetation types</li> <li>• Restore irrigation to Frain Ranch and other old homesteads to improve brood rearing habitat</li> <li>• Develop food plots for winter areas using grains and native species</li> <li>• Develop roost areas through thinning and pruning of pine stands</li> <li>• Conduct transplants to augment populations</li> </ul>

RESOURCE/PROGRAM Action/location	Alternative 1— No action (continue existing management)	Alternative 2— Enhancement/improvement of opportunities and resources	Alternative 3— Natural resource enhancement/ restoration	Alternative 4— Expand human use opportunities (enhance recreation/values)
<b>Land birds (general)</b>	<ul style="list-style-type: none"> <li>• Improve riparian management throughout the canyon</li> <li>• Manage for a minimum of 60% optimal cavity nester populations (same as the KFRMP/FEIS)</li> </ul>	<ul style="list-style-type: none"> <li>• Improve riparian management throughout the canyon; use current and historical irrigation systems to develop more woody riparian vegetation in meadow areas</li> <li>• Manage for a minimum of 60 percent optimal cavity nester populations (same as the KFRMP/FEIS)</li> <li>• Use bird boxes and artificial structures in all campgrounds and day use areas</li> </ul>	<ul style="list-style-type: none"> <li>• Improve riparian management throughout the canyon; use current and historical irrigation systems to develop more woody riparian vegetation in meadow areas</li> <li>• Use passive irrigation to promote woody riparian vegetation</li> <li>• Manage for 100 percent optimum levels for cavity nester populations</li> <li>• No boxes will be installed; will utilize improved habitat to provide the nest sites</li> </ul>	<ul style="list-style-type: none"> <li>• Increase meadow management to develop more wet meadow areas with shrubs along the drainage facilities</li> <li>• Manage for 100 percent optimum levels for cavity nester populations</li> <li>• Bird boxes and artificial structures in all campgrounds and day use areas</li> <li>• Develop a complete Watchable - Wildlife program throughout the canyon; see also recreation plans</li> </ul>
<b>Blue birds</b>	<ul style="list-style-type: none"> <li>• Use of fire and oak management to manage open areas</li> </ul>	<ul style="list-style-type: none"> <li>• Use of fire and oak management to manage open areas</li> <li>• Use of nest boxes to improve utilization of some habitats</li> </ul>	<ul style="list-style-type: none"> <li>• Forest community management to provide for accessible nest trees adjacent to open areas</li> </ul>	<ul style="list-style-type: none"> <li>• Nest boxes throughout the canyon on trees, on power poles, and in campgrounds</li> </ul>
<b>Mountain quail</b>		<ul style="list-style-type: none"> <li>• Burning and mechanical treatment of shrubfields to create a mosaic of field conditions and seral stages</li> </ul>	<ul style="list-style-type: none"> <li>• Maximize shrub-field management; utilize vegetation management to restore natural mosaics</li> </ul>	<ul style="list-style-type: none"> <li>• Burning and mechanical treatment of shrubfields to create a mosaic of shrub-field conditions and seral stages</li> <li>• Improved meadow management (dry and wet); development of food plots</li> <li>• Fencing of documented quail habitat to protect from grazing animals and OHVs</li> </ul>
<b>Woodpeckers</b>	<ul style="list-style-type: none"> <li>• Current management as in KFRMP/FEIS, 100 percent optimal cavity nester habitat in riparian areas and a minimum of 60 percent optimal cavity nester habitat outside the riparian zone</li> <li>• Improve mast crops for acorn and Lewis woodpeckers by thinning some oak stands</li> <li>• Protect granary trees for acorn storage by acorn woodpeckers</li> </ul>	<ul style="list-style-type: none"> <li>• Current management as in KFRMP/FEIS, 100 percent optimal cavity nester habitat in riparian areas and a minimum of 60 percent optimal cavity nester habitat outside the riparian zone</li> <li>• Improve mast crops for acorn and Lewis woodpeckers by thinning extensive oak stands</li> <li>• Protect granary trees for acorn storage by acorn woodpeckers; manage selected trees for future granary trees</li> </ul>	<ul style="list-style-type: none"> <li>• Manage for 100 percent optimal cavity nester habitat throughout the canyon</li> <li>• Improve mast crops for acorn and Lewis woodpeckers by thinning extensive oak stands; improve riparian zone management for downy woodpeckers; mast crop improvement</li> <li>• Protect granary trees for acorn storage by acorn woodpeckers; manage pine stands to create future granary trees</li> </ul>	<ul style="list-style-type: none"> <li>• Manage for 100 percent optimal cavity nester habitat throughout the canyon</li> <li>• Improve mast crops for acorn and Lewis woodpeckers by thinning extensive oak stands; improve riparian zone management for downy woodpeckers</li> <li>• Mast crop improvement</li> <li>• Install drumming boards in campground to increase visibility of woodpeckers</li> <li>• Protect granary trees for acorn storage by acorn woodpeckers; highlight these trees for public awareness and education</li> </ul>



RESOURCE/PROGRAM Action/location	Alternative 1— No action (continue existing management)	Alternative 2— Enhancement/improvement of opportunities and resources	Alternative 3— Natural resource enhancement/ restoration	Alternative 4— Expand human use opportunities (enhance recreation/values)
<b>Bats</b>	<ul style="list-style-type: none"> <li>• Add roost structures to existing signs</li> <li>• See also “Salt Caves Management Plan” for management direction</li> </ul>	<ul style="list-style-type: none"> <li>• Protect buildings that are used by bats; install bat boxes</li> <li>• See also “Salt Caves Management Plan” for management direction</li> </ul>	<ul style="list-style-type: none"> <li>• Develop natural habitat</li> <li>• See also “Salt Caves Management Plan” for management direction</li> </ul>	<ul style="list-style-type: none"> <li>• Signs, buildings, and bridges would be made bat compatible; develop more artificial bat structures</li> <li>• See also “Salt Caves Management Plan” for management direction</li> </ul>
<b>Herptiles</b>				
Terrestrial	<ul style="list-style-type: none"> <li>• Protect hibernaculums, manage for retention of large woody debris as in KFRMP/FEIS (120 linear feet of logs/acre equal to 16 inch diameter and at least 16 feet long)</li> </ul>	<ul style="list-style-type: none"> <li>• Protect hibernaculums, manage for retention of large woody debris as in KFRMP/FEIS (120 linear feet of logs/acre equal to 16 inch diameter and at least 16 feet long)</li> <li>• Also protect large woody debris during vegetation management projects</li> </ul>	<ul style="list-style-type: none"> <li>• Protect hibernaculums, manage for retention of large woody debris as in KFRMP/FEIS (120 linear feet of logs/acre equal to 16 inch diameter and at least 16 feet long)</li> <li>• Develop or improve hibernaculum at old power housing site by using the stock pile of large boulders from road clearing activities</li> </ul>	<ul style="list-style-type: none"> <li>• Protect hibernaculums, manage for retention of large woody debris as in KFRMP/FEIS (120 linear feet of logs/acre equal to 16 inch diameter and at least 16 feet long)</li> <li>• Install herp crossings (culverts) in roads near important habitats to reduce road kills and improve migration</li> </ul>
Aquatic		<ul style="list-style-type: none"> <li>• Fence springs or riparian that are being impacted</li> </ul>	<ul style="list-style-type: none"> <li>• Reconnect Boulder and Crazy 8 spring (Frain Ranch Area) to river by removing roads that intercept flow</li> <li>• Increase accessibility into tributaries from the river to improve Pacific giant salamander breeding/wintering habitat</li> <li>• Close roads that cross Crayfish Creek</li> <li>• Create cobble/gravel bars that will be exposed during different water levels for foothill yellow-legged frog basking areas (historical sighting of frog in canyon area)</li> </ul>	<ul style="list-style-type: none"> <li>• Install culverts in Crayfish Creek road crossings</li> </ul>
Pond turtles	<ul style="list-style-type: none"> <li>• Fuel reductions adjacent to river to improve access to the selected nesting areas</li> </ul>	<ul style="list-style-type: none"> <li>• Fuel reductions adjacent to river to improve access to the selected nesting areas; add large layered woody debris to provide basking habitat during all water levels</li> <li>• Manage potential egg laying areas (gradual gradient, deep soils, good exposure to the sun); this may involve thinning forest communities, fuel reductions, and vegetation management to promote desired conditions</li> </ul>	<ul style="list-style-type: none"> <li>• Fuel reductions adjacent to river to improve access to the selected nesting areas</li> <li>• Manage potential egg laying areas (gradual gradient, deep soils, good exposure to the sun); this may involve thinning forest communities, fuel reductions, and vegetation management to promote desired conditions; remove camping areas in Frain Ranch and BLM river campground</li> </ul>	<ul style="list-style-type: none"> <li>• Fuel reductions adjacent to river to improve access to the selected nesting areas; add large layered woody debris to provide basking habitat during all water levels</li> <li>• Manage potential egg laying areas (gradual gradient, deep soils, good exposure to the sun); this may involve thinning forest communities, fuel reductions, and vegetation management to promote desired conditions</li> </ul>

RESOURCE/PROGRAM Action/location	Alternative 1— No action (continue existing management)	Alternative 2— Enhancement/improvement of opportunities and resources	Alternative 3— Natural resource enhancement/ restoration	Alternative 4— Expand human use opportunities (enhance recreation/values)
<b>Big game</b>				
Deer	<ul style="list-style-type: none"> <li>Existing road closures</li> <li>Manage to maintain a 60/40 forage cover ratio</li> <li>Retain hiding cover adjacent to open roads</li> </ul>	<ul style="list-style-type: none"> <li>Increase road closures; reduce open roads to 1.5 miles/section through an active closure program not necessarily associated with other activities</li> <li>Scatter oak thinning and shrub-field management projects throughout the canyon areas to increase food availability</li> <li>Manage to maintain a 60/40 forage cover ratio</li> <li>Retain hiding cover adjacent to open roads</li> </ul>	<ul style="list-style-type: none"> <li>Close all roads except those needed for daily management access</li> <li>Burn/scarify 25 percent of ceonothus shrubfields every decade</li> <li>Manage to maintain a 60/40 forage cover ratio</li> <li>Reduce open roads to the minimum number needed</li> </ul>	<ul style="list-style-type: none"> <li>Road closures only used when needed to reduce disturbance to special status species or under cooperative agreements</li> <li>Scatter oak thinning and shrub-field management projects throughout the canyon areas to increase food availability and visibility of deer</li> <li>Manage to maintain a 60/40 forage cover ratio</li> </ul>
Elk	<ul style="list-style-type: none"> <li>Maintain existing road closures</li> </ul>	<ul style="list-style-type: none"> <li>Reduce open roads to 1.5 miles/section through an active closure program not necessarily associated with other activities</li> </ul>	<ul style="list-style-type: none"> <li>Close all roads except those needed for daily management access</li> <li>Reduce open roads to the minimum number needed</li> </ul>	<ul style="list-style-type: none"> <li>Road closures only used when needed to reduce disturbance to special status species or under cooperative agreements</li> </ul>
Bears	<ul style="list-style-type: none"> <li>Maintain existing road closures</li> </ul>	<ul style="list-style-type: none"> <li>Reduce open roads to 1.5 miles/section through an active closure program not necessarily associated with other activities</li> <li>Maintain berry production and improve mast crops</li> </ul>	<ul style="list-style-type: none"> <li>Close all roads except those needed for daily management access</li> <li>Modify existing irrigation to provide shrubs and wet meadow habitat</li> </ul>	<ul style="list-style-type: none"> <li>Road closures only used when needed to reduce disturbance to special status species or under cooperative agreements</li> <li>Improve berry production</li> </ul>
<b>Vegetation treatments</b>				
Oak areas	<ul style="list-style-type: none"> <li>Treat selected units in rarely seen areas away from the river or screened from the river by other vegetation (refer to vegetation management prescriptions)</li> </ul>	<ul style="list-style-type: none"> <li>Treat scattered units along the river that have visual concerns addressed (refer to vegetation management prescriptions)</li> </ul>	<ul style="list-style-type: none"> <li>All oak areas will be treated (refer to vegetation management prescriptions)</li> </ul>	<ul style="list-style-type: none"> <li>Treat scattered units along the river that have visual concerns addressed (refer to vegetation management prescriptions)</li> </ul>
Mixed conifer	<ul style="list-style-type: none"> <li>Fuel reductions in areas that have other resource concerns (i.e., eagle nests)</li> <li>Prescribed fire used only when unit is randomly selected</li> </ul>	<ul style="list-style-type: none"> <li>Fuel reductions in areas that have other resource concerns (i.e., eagle nests); fuel reductions in all riparian timber stands; more manual and mechanical thinning around older trees</li> <li>Use prescribed fire in old burns and selected timber units; also random selections</li> </ul>	<ul style="list-style-type: none"> <li>All stands treated to reduce density and basal area to carrying capacity; maintain a mix of species and size classes</li> <li>Extensive use of prescribed fire to maintain vegetative communities especially after initial treatments</li> </ul>	<ul style="list-style-type: none"> <li>Fuel reduction in all timbered areas adjacent to recreational development</li> <li>Use of prescribed fire limited to areas well outside of the developed recreation sites</li> </ul>

RESOURCE/PROGRAM Action/location	Alternative 1— No action (continue existing management)	Alternative 2— Enhancement/improvement of opportunities and resources	Alternative 3— Natural resource enhancement/ restoration	Alternative 4— Expand human use opportunities (enhance recreation/values)
Shrub fields	<ul style="list-style-type: none"> <li>• Shrub/browse species would be treated in conjunction with the oak treatments</li> </ul>	<ul style="list-style-type: none"> <li>• Prioritize south and west slopes for treatments to rejuvenate browse species</li> </ul>	<ul style="list-style-type: none"> <li>• Treat all shrubfields to rejuvenate the shrub species; create a mosaic of age and species</li> </ul>	<ul style="list-style-type: none"> <li>• Manage shrubfields in areas where the public can view the wildlife</li> </ul>

## WATERSHED VALUES

### Instream flows

#### Segment 1

<ul style="list-style-type: none"> <li>• Instream flows sufficient for favorable channel conditions and fish passage are emphasized</li> <li>• No flow changes anticipated unless as a result of FERC relicensing process</li> </ul>	<ul style="list-style-type: none"> <li>• During the FERC relicensing process, recommend increased baseflow to support fish migration</li> <li>• During the FERC relicensing process, recommend reduced rates of down-ramping on the receding limb of flood hydrographs</li> </ul>	<ul style="list-style-type: none"> <li>• During the FERC relicensing process, recommend flows in this reach that more closely resemble natural flow regimes and provide fish habitat and fish passage through this segment and adjacent hydroelectric facilities—these flows will include increased baseflows and occasional “pulse” flows</li> <li>• During the FERC relicensing process, recommend the occasional release of geomorphic flows to prevent vegetation encroachment and enhance channel-forming processes</li> <li>• During the FERC relicensing process, recommend reduced rates of ramping on the rising and receding limbs of flood hydrographs</li> </ul>	<ul style="list-style-type: none"> <li>• During the FERC relicensing process, recommend increased flow releases that would enhance whitewater recreation and fish migration</li> <li>• During the FERC relicensing process, recommend reduced rates of down-ramping on the receding limb of flood hydrographs</li> </ul>
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RESOURCE/PROGRAM Action/location	Alternative 1— No action (continue existing management)	Alternative 2— Enhancement/improvement of opportunities and resources	Alternative 3— Natural resource enhancement/ restoration	Alternative 4— Expand human use opportunities (enhance recreation/values)
<i>Segment 2</i>	<ul style="list-style-type: none"> <li>Fisheries baseflow based on FERC Relicensing and other analyses</li> <li><i>Recreation/scenic flows:</i> secure water claim rights for 1,500 cfs instream flow from Memorial Day to September 30</li> <li><i>Fisheries flows:</i> secure water claim rights for 625 cfs instream flow from April 1 through June 15 and 525 cfs from June 16 through March 31</li> <li>As new information becomes known, address instream flow needs through the FERC relicensing process</li> </ul>	<ul style="list-style-type: none"> <li>Fisheries baseflow based on FERC Relicensing and other analyses</li> <li>During the FERC relicensing process, recommend a “modified run-of-the-river” flow regime, in which J.C. Boyle operations are allowed to alter instantaneous flows within a defined range around the daily average flow—some peaking (within acceptable ramp rates) could occur if necessary to attain recreation flow objectives</li> <li>During the FERC relicensing process, recommend reductions in the ramp rate at the J.C. Boyle Powerhouse</li> <li><i>Recreation/scenic flows:</i> secure water claim rights for 1,500 cfs instream flow from Memorial Day to September 30</li> <li><i>Fisheries flows:</i> secure water claim rights for 625 cfs instream flow from April 1 through June 15 and 525 cfs from June 16 through March 31</li> </ul>	<ul style="list-style-type: none"> <li>Fisheries baseflow based on FERC Relicensing and other analyses</li> <li>During the FERC relicensing process, recommend a “run-of-the-river” flow regime downstream from the powerhouse that mirrors the volume of water flowing into J.C. Boyle Reservoir (plus the accretions from the springs in Segment 1) and minimizes flow fluctuations associated with peaking</li> <li>During the FERC relicensing process, recommend reductions in the ramp rate at the J.C. Boyle Powerhouse</li> <li><i>Recreation/scenic flows:</i> secure water claim rights for 1,500 cfs instream flow from Memorial Day to September 30</li> <li><i>Fisheries flows:</i> secure water claim rights for 625 cfs instream flow from April 1 through June 15 and 525 cfs from June 16 through March 31</li> </ul>	<ul style="list-style-type: none"> <li>Fisheries baseflow based on FERC Relicensing and other analyses</li> <li>During the FERC relicensing process, recommend reductions in the ramp rate at the J.C. Boyle Powerhouse</li> <li>During the FERC relicensing process, recommend that releases from the powerhouse be timed to optimize whitewater opportunities</li> <li><i>Recreation/scenic flows:</i> secure water claim rights for 1,500 cfs instream flow from Memorial Day to September 30</li> <li><i>Fisheries flows:</i> Secure water claim rights for 625 cfs instream flow from April 1 through June 15 and 525 cfs from June 16 through March 31</li> <li>As new information becomes known, address fisheries instream flow needs through the FERC relicensing process</li> </ul>
<i>Segment 3</i>	<ul style="list-style-type: none"> <li>Flows in this segment are essentially the same as in Segment 2</li> </ul>	<ul style="list-style-type: none"> <li>Flows in this segment are essentially the same as in Segment 2</li> </ul>	<ul style="list-style-type: none"> <li>Flows in this segment are essentially the same as in Segment 2</li> </ul>	<ul style="list-style-type: none"> <li>Flows in this segment are essentially the same as in Segment 2</li> </ul>
<b>Irrigation Diversions</b>				
<i>Segment 1</i>	<ul style="list-style-type: none"> <li>No irrigation diversions occur</li> </ul>	<ul style="list-style-type: none"> <li>No irrigation diversions occur</li> </ul>	<ul style="list-style-type: none"> <li>No irrigation diversions occur</li> </ul>	<ul style="list-style-type: none"> <li>No irrigation diversions occur</li> </ul>
<i>Segment 2</i>	<ul style="list-style-type: none"> <li>Klamath River irrigation diversions; no action regarding irrigation diversions</li> </ul>	<ul style="list-style-type: none"> <li>Klamath River irrigation diversions; apply adaptive management to adjust the timing and magnitude of flow through these diversion points to achieve vegetation management and wildlife habitat objectives</li> <li>Consider managing existing irrigation infrastructure at Frain Ranch and Hoover Ranch to benefit wet meadows and wildlife</li> </ul>	<ul style="list-style-type: none"> <li>Klamath River irrigation diversions; apply adaptive management to adjust the timing and magnitude of flow through these diversion points to achieve vegetation management and wildlife habitat objectives</li> </ul>	<ul style="list-style-type: none"> <li>Klamath River irrigation diversions; no action regarding irrigation diversions</li> <li>Consider managing existing irrigation infrastructure at Frain Ranch and Hoover Ranch to benefit wet meadows and wildlife</li> </ul>

RESOURCE/PROGRAM Action/location	Alternative 1— No action (continue existing management)	Alternative 2— Enhancement/improvement of opportunities and resources	Alternative 3— Natural resource enhancement/ restoration	Alternative 4— Expand human use opportunities (enhance recreation/values)
<i>Segment 3</i>	<ul style="list-style-type: none"> <li>• Klamath River irrigation diversions; no action regarding irrigation diversions</li> <li>• Shovel Creek diversions; no action regarding irrigation diversions</li> <li>• Negro Creek diversion; no action regarding irrigation diversions</li> </ul>	<ul style="list-style-type: none"> <li>• Klamath River irrigation diversions; apply adaptive management to adjust the timing and magnitude of flow through these diversion points to achieve vegetation management and wildlife habitat objectives</li> <li>• Shovel Creek diversions; recommend these 2 irrigation diversions to be managed primarily for instream flows and water quality maintenance, as well as for meadow restoration and habitat; diversions will be in use primarily during the high flow season</li> <li>• Negro Creek diversion; recommend eventual removal of 1 diversion structure</li> </ul>	<ul style="list-style-type: none"> <li>• Klamath River irrigation diversions; apply adaptive management to adjust the timing and magnitude of flow through these diversion points to achieve vegetation management and wildlife habitat objectives</li> <li>• Shovel Creek diversions; recommend eventual removal of 2 diversions</li> <li>• Negro Creek diversion; recommend eventual removal of 1 diversion structure</li> </ul>	<ul style="list-style-type: none"> <li>• Klamath River irrigation diversions; no action regarding irrigation diversions</li> <li>• Shovel Creek diversions; recommend these 2 irrigation diversions to be managed primarily for instream flows and water quality maintenance, as well as for meadow restoration and habitat; diversions will be in use primarily during the high flow season</li> <li>• Negro Creek diversion will be managed similar to Shovel Creek</li> </ul>
<b>Water quality (temperature)</b>	<ul style="list-style-type: none"> <li>• No action</li> </ul>	<ul style="list-style-type: none"> <li>• Recommend alterations in hydroelectric facilities and/or operations to reduce exaggerated daily temperature fluctuations in Ssegment 2 caused by flow fluctuations</li> </ul>	<ul style="list-style-type: none"> <li>• Recommend alterations in hydroelectric facilities and/or operations to reduce exaggerated daily temperature fluctuations in Ssegment 2 caused by flow fluctuations</li> </ul>	<ul style="list-style-type: none"> <li>• No action</li> </ul>

RESOURCE/PROGRAM Action/location	Alternative 1— No action (continue existing management)	Alternative 2— Enhancement/improvement of opportunities and resources	Alternative 3— Natural resource enhancement/ restoration	Alternative 4— Expand human use opportunities (enhance recreation/values)
<b>AQUATIC SPECIES/HABITAT</b>				
<b>Ladder attraction flow</b>	<ul style="list-style-type: none"> <li>• No changes in attraction flows would occur as part of this plan</li> </ul>	<ul style="list-style-type: none"> <li>• Ladder attraction flow points would be redesigned to enhance attraction flows to lead fish to the existing opening of the ladder orifice; treatments would be localized within the area currently affected by the ladder and immediately in front of the ladder; concrete structures may be installed at the outlet and extend up to 50 feet downstream of the current opening within the stream channel</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Option 1:</i> Facility operations would occur as run of the river, as such fish migration facilities would be designed to take advantage of that condition; it would be anticipated that a substantial change in the release of water (base flows and peak flow periodicity) from J.C. Boyle Dam would occur as part of this alternative; fish ladder design would direct fish towards ladder inlets based on dominant flow patterns from the spill gates or water release points; demolition of existing facilities and construction of new facilities at J.C. Boyle Dam could occur as a result of this option</li> <li>• <i>Option 2:</i> Facilities that impair fish migration are removed; no ladder technology is required for fish to move through the J.C. Boyle area</li> </ul>	<ul style="list-style-type: none"> <li>• Ladder attraction flow points would be redesigned to enhance attraction flows to lead fish to the existing opening of the ladder orifice; treatments would be localized within the area currently affected by the ladder and immediately in front of the ladder; concrete structures may be installed at the outlet and extend up to 50 feet downstream of the current opening within the stream channel</li> </ul>
<b>Bypass outfall attraction flow</b>	<ul style="list-style-type: none"> <li>• No changes in attraction flows would occur as part of this plan</li> </ul>	<ul style="list-style-type: none"> <li>• Bypass outfall would be redesigned in order to minimize fish attraction to bypass flows; facilities may include construction of a manifold system to diffuse the water released from bypass; facilities may also include relocation of the bypass outfall to be incorporated with the fish ladder attraction water</li> </ul>	<ul style="list-style-type: none"> <li>• It would be anticipated that a substantial change in the release of water (base flows and peak flow periodicity) from J.C. Boyle Dam would occur as part of this alternative; bypass outfall flows would have to be assessed based on the new flow release program; outfall design would incorporate the operational constraints for the new release patterns</li> <li>• <i>Option 1:</i> The facilities that impair downstream migration of fish would be removed; hence the screens and bypass for fish would no longer be present; outfall would be removed as it would no longer be necessary</li> <li>• <i>Option 2:</i> Bypass outfall would be located in concert with fish ladder attraction flows in order to enhance attractions flows to adult fish passage facilities</li> </ul>	<ul style="list-style-type: none"> <li>• Bypass outfall would be redesigned in order to minimize fish attraction to bypass flows; facilities may include construction of a manifold system to diffuse the water released from bypass; facilities may also include relocation of the bypass outfall to be incorporated with the fish ladder attraction water</li> </ul>
<b>Temperature differentials</b>	<ul style="list-style-type: none"> <li>• No changes in temperatures would be pursued as part of this plan</li> </ul>	<ul style="list-style-type: none"> <li>• Flow release patterns would address the impacts of exaggerating the diel temperature fluctuation which affects the full flow reach below the Powerhouse</li> </ul>	<ul style="list-style-type: none"> <li>• Flow regimes which exaggerate diel temperature fluctuations would be eliminated</li> </ul>	<ul style="list-style-type: none"> <li>• Flow release patterns would address the impacts of exaggerating the diel temperature fluctuation which affects the full flow reach below the Powerhouse</li> </ul>



RESOURCE/PROGRAM Action/location	Alternative 1— No action (continue existing management)	Alternative 2— Enhancement/improvement of opportunities and resources	Alternative 3— Natural resource enhancement/ restoration	Alternative 4— Expand human use opportunities (enhance recreation/values)
<b>Bypass Reach Canal and road sidecast instream</b>	<ul style="list-style-type: none"> <li>• No changes in Segment 1 channel morphology would occur as part of this plan</li> </ul>	<ul style="list-style-type: none"> <li>• Removal of sidecast material within the stream channel would occur as well as removal of sidecast along the west bank in areas determined to be impairing channel/riparian recovery; the installation of bankfull benches along reaches of the river impaired by road and canal construction would be designed to promote riparian vegetative recovery</li> </ul>	<ul style="list-style-type: none"> <li>• Full pull back of sidecast material associated with canal and road construction within Segment 1; floodplains would be reestablished in areas impacted by sidecast in order to provide high flow relief areas, resulting in natural hydrologic behavior through the impaired reach; areas on the opposite side of the river may need to be structurally enhanced in order to prevent further degradation of the river left canyon wall</li> </ul>	<ul style="list-style-type: none"> <li>• Enhancement of Segment 1 channels would be intended to improve localized mainstem width/depth channel features to provide a broader range of recreational boating opportunities; instream channel design would encompass enhancement of structure that would additionally benefit fishery resources; sidecast material impairing salmonid migration within Segment 1 would be removed</li> </ul>
<b>Emergency water release chute (Segment 1)</b>	<ul style="list-style-type: none"> <li>• Incised gorge would be stabilized; stabilization would constitute hardening the outfalls and shear cliff walls with either concrete and/or fill material; the rejection chute should be redesigned or enhanced so as to avoid future degradation of the hill slope</li> </ul>	<ul style="list-style-type: none"> <li>• Incised gorge would be stabilized and material affecting the river channel would be removed; a bankfull bench along the river edge would be installed in order to establish a vegetative community; redesign of the local canal system would be encouraged in order to reduce or eliminate the need for the load rejection chute; in the event that facility modifications cannot be made which makes the rejection chute unnecessary, then the concrete structure would need to be extended down to the flood prone edge of the river</li> </ul>	<ul style="list-style-type: none"> <li>• Incised gorge would be filled back in to mimic historic elevations of the upper bench, hill slope and flood prone area adjacent to the river; material affecting river morphology would be removed and at a minimum placed back into the hole; facilities would be redesigned such that the load rejection would be unnecessary and then could be removed; design options for the canal could include capping the canal with concrete and installing surge towers; another design option may include the installation of a closed pipe inside the canal and installing surge towers; in the event that facility modifications cannot be made which makes the rejection chute unnecessary, then the concrete structure would need to be extended down to the flood prone edge of the river</li> </ul>	<ul style="list-style-type: none"> <li>• Incised gorge would be stabilized; stabilization would constitute hardening the outfalls and shear cliff walls with either concrete or boulder fill; material within the river channel which impairs boating opportunities would be removed; if possible, a bankfull bench would be installed in order to establish a riparian community</li> </ul>

RESOURCE/PROGRAM Action/location	Alternative 1— No action (continue existing management)	Alternative 2— Enhancement/improvement of opportunities and resources	Alternative 3— Natural resource enhancement/ restoration	Alternative 4— Expand human use opportunities (enhance recreation/values)
<b>Channel width treatments</b>	<ul style="list-style-type: none"> <li>• No changes in channel widths and channel function would occur as part of this plan</li> </ul>	<ul style="list-style-type: none"> <li>• Limited channel treatments would be pursued; approximately 22 sites identified through aerial photographic analysis; these sites were selected based on the premise that the existing channel widths at the site are outside the natural range for the river in the planning area; all channel widths exceeding 200 feet were identified for review and treatment; each site would be further reviewed at the local level for channel condition and reference width/depth ratios; based on cross-section and longitudinal profile information and reference conditions, channel narrowing projects would be instituted at these sites; additional sites may be identified based on site level review of channel conditions that may warrant channel treatment; enhancement of banks and channel profile could occur; installation of rock and/or log wiers including bankfull benches with transplanted riparian vegetation would be designed to protect the channel from additional lateral erosion and lead the stream toward a reference condition channel profile</li> </ul>	<ul style="list-style-type: none"> <li>• Extensive channel treatments would be pursued; at least 69 sites have been identified through aerial photographic analysis and would be further reviewed at the local level for channel condition and true width/depth ratios; all channel widths exceeding the channel width of 150 feet where identified for review and treatment</li> </ul>	<ul style="list-style-type: none"> <li>• Limited channel treatments would be pursued in order to enhance the recreational rafting experience which at the same time would benefit fishery resources; 7 sites were identified where channel widths exceeded an extreme condition, over 250 feet wide; these sites would be reviewed and treated in a manner to reduce the channel width and improve pool habitat at the sites</li> </ul>
<b>Sediment (sediment particles captured by JC Boyle Dam)</b>	<ul style="list-style-type: none"> <li>• No changes in sediment and sediment regimes would occur as part of this plan</li> </ul>	<ul style="list-style-type: none"> <li>• Establish a sediment replenishment program along the length of the Klamath River; sites would be selected where regular placement of clean river sediment would occur, in order to provide supplemental sediment sources for channel/bank development and spawning gravel enhancement; sediments would be allowed to naturally sort in the river channel based on riverine hydraulics</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Option 1:</i> Bypass natural sediment from Spencer Creek and upper Klamath River around the J.C. Boyle facility; this may include an offsite diversion of sediment to a stilling area where either a conveyance chute or trap and haul actions would move sediment around the dam.</li> <li>• <i>Option 2:</i> J.C. Boyle facilities would be redesigned in order to pass sediments imported to the reservoir through the dam; construction would be localized to the immediate area of the dam; natural sediment regimes would be restored</li> </ul>	<ul style="list-style-type: none"> <li>• Spot enhancement of sediment would occur in locations accessible or visible to the public and/or determined to have the greatest likeliness of enhancing the recreational fishery</li> </ul>

RESOURCE/PROGRAM Action/location	Alternative 1— No action (continue existing management)	Alternative 2— Enhancement/improvement of opportunities and resources	Alternative 3— Natural resource enhancement/ restoration	Alternative 4— Expand human use opportunities (enhance recreation/values)
<b>Large wood treatments</b>	<ul style="list-style-type: none"> <li>• No changes in large woody debris quantities or recruitment would occur as part of this plan</li> </ul>	<ul style="list-style-type: none"> <li>• Large woody debris treatment of the mainstem river channel along the banks would occur so long as material size and use is consistent with recreational boating activities; mainstem large woody debris treatment locations would be consistent with the channel width treatment locations</li> <li>• Limited enhancement of fish-bearing tributaries using large woody debris would occur; installation of large woody debris would include channel structure wood treatments with specific design and installation of large woody debris and potentially some log jams [log jams would include at least 1 or 2 key pieces of large woody debris and various other sizes of wood intended to alter channel hydraulics over differing flow levels at a site; channel structure treatments use wood as a bank stabilizing and width to depth altering structural treatment, typically including burying wood into the stream bank; tributary wood installation would be sufficiently designed to prevent recruitment/movement of installed large woody debris to the mainstem channel]</li> </ul>	<ul style="list-style-type: none"> <li>• Extensive installation of large woody debris along all fish-bearing reaches in the planning area would occur; number of large wood treatments (approximately 30—50 pieces/mile) would be an average of standards for large woody debris (PACFISH/INFISH = &gt;20 pieces/mile of &gt;12 inch diameter and 35 foot length; and USFWS/NMFS for Western Cascades is &gt;60 pieces/mile)</li> </ul>	<ul style="list-style-type: none"> <li>• Enhancement of wood component in the mainstem and tributaries would be locally designed to enhance stream habitats in order to improve localized recreational fishery opportunities; emphasis for wood placement would be designed so as to not conflict with recreational boating in the mainstem and tributary installation would be of sufficient size and structure so as to not be expected to move under substantial flows (50–100 year events); treatment focus would be in areas that would be accessible or visible to the visiting publics</li> </ul>

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<b>Chute-cutoffs (lateral side channels of the river; numerous locations, see Maps 25 through 28)</b>	<ul style="list-style-type: none"> <li>No changes in chute-cutoffs would occur as part of this plan</li> </ul>	<ul style="list-style-type: none"> <li>Side channels and chute-cutoffs would be reviewed for the impacts of project operations on the fisheries resources; depending on future project operations those channels features that are found to be potential fish-stranding areas would be enhanced so as to minimize stranding risks; channel enhancements would include improving/creating pool habitat or deepening the channel in order to provide escape routes for fish</li> </ul>	<ul style="list-style-type: none"> <li>As part of efforts to restore width/depth ratios along the mainstem river those chute-cutoffs and side channels that contribute to a degradation of the mainstem width/depth ratio will be obstructed from access for all flows below bankfull; rock structures, logs and fill material would be placed in the side channel and installed using methods that would protect the upstream banks; side channels and chute cutoffs that do not contribute to degradation of the width/depth ratio and or those features found to be prehistoric in nature would be reviewed for the impacts of project operations on the fisheries resources; depending on future project operations those prehistoric channels that are found to be potential stranding areas would be enhanced, similar to Alternative 2 enhancement, to minimize stranding risks</li> </ul>	<ul style="list-style-type: none"> <li>Closing off chute-cutoff channels would be intended to improve flow within the mainstem channel in order to provide a broader range of recreational rafting opportunities; design of mainstem channel improvements would encompass construction of mainstem channel structures that would reduce width to depth ratios to improve boating opportunities and provide additional fishery resource benefits</li> </ul>
<b>Bridge sites</b>	<ul style="list-style-type: none"> <li>No changes to old bridge sites would occur as part of this plan</li> </ul>	<ul style="list-style-type: none"> <li>Treatment of 1 or more old bridge sites that impair channel processes; this could include removal of abutment material allowing restoration of floodplain channel forming processes above and below the site, and removal of road prisms leading to bridge abutments</li> </ul>	<ul style="list-style-type: none"> <li>All bridge sites within the Klamath River planning area would be treated in order to restore channel and floodplain features and processes; roads leading to bridge abutments, and the bridge abutments, would be removed in order to eliminate channel restrictions; instream treatments and rock weirs would be employed to restore bankfull width/depth ratios to reference conditions</li> </ul>	<ul style="list-style-type: none"> <li>Actions associated with bridge sites would occur in order to enhance the human use experience and are not intended to directly benefit fishery resources</li> </ul>

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<b>Diversions</b>	<ul style="list-style-type: none"> <li>• No changes in mainstem or tributary diversions would occur as part of this plan</li> </ul>	<ul style="list-style-type: none"> <li>• The diversions of the Klamath River which have increased the width/depth ratios of the channel adjacent to the diversion would be treated to reduce the ratios to within the reference range of variance for the channel type; structural enhancement would include removal of the existing boulder material and installation of rock weirs designed to centralize base flows, provide deeper pools, and maintain irrigation diversion capabilities, rock and log vains would be installed upstream and downstream of the diversion in order to narrow the channel width; existing screened water diversions in tributaries to the Klamath River would be maintained so long as fisheries access can be maintained though the diversion; where upstream and or downstream movement is limited by water diversions, the tributary diversion should be removed in order to maintain fishery access; based on field review Negro Creek diversion currently impairs fish movement during low flow periods and should be removed; screens would be placed on all maintained diversion points; diversions may be retained in order to maintain or enhance upland/riparian habitats; Hayden Creek intersection with a mainstem diversion canal would be altered such that flows from Hayden would reach the river channel unfettered by the canal; the canal would be either buried or piped over the Hayden Creek channel</li> </ul>	<ul style="list-style-type: none"> <li>• All mainstem and tributary diversions would be targeted for removal, rock and log vains would be installed upstream and downstream of the diversion in order to narrow the channel width to within the reference range of variance for the channel type; some diversions may be retained over the short term in order to maintain or enhance upland/riparian habitats; screens would be placed on all maintained diversion points; Hayden Creek intersection with the mainstem diversion would be restored to natural channel condition</li> </ul>	<ul style="list-style-type: none"> <li>• Screens would be placed on all maintained diversion points to protect fisheries resources; the diversions of the Klamath River which have increased the width/depth ratios of the channel adjacent to the diversion would be enhanced so as to improve the recreational rafting opportunities; structural enhancement of these mainstem diversions would be designed to additionally benefit fishery resources; Hayden Creek intersection with a mainstem diversion canal would be altered such that flows from Hayden would reach the river channel unfettered by the canal; the canal would be either buried or piped over the Hayden Creek channel</li> </ul>

RESOURCE/PROGRAM Action/location	Alternative 1— No action (continue existing management)	Alternative 2— Enhancement/improvement of opportunities and resources	Alternative 3— Natural resource enhancement/ restoration	Alternative 4— Expand human use opportunities (enhance recreation/values)
<b>LIVESTOCK GRAZING</b>				
<b>Permitted Use (AUMS)</b>	<p>BLM, 171; PacifiCorp, 2,500 to 3,000</p> <ul style="list-style-type: none"> <li>• License livestock grazing use up to the maximum lease amount of 171 animal unit months on BLM lands; PacifiCorp lands would continue to provide approximately 2,500–3,000 animal unit months of use yearly</li> <li>• Rangeland monitoring data collection</li> <li>• Rangeland health standards assessments</li> <li>• Periodic grazing use supervision</li> <li>• Implement/maintain rangeland improvement projects</li> <li>• Grazing management consistent with wildlife habitat maintenance/improvement</li> <li>• Construct up to 2 miles of additional fencing on the north Klamath River canyon rim to control livestock drift</li> </ul>	<p>BLM, 125 to 171; PacifiCorp, 0 to 2,000</p> <ul style="list-style-type: none"> <li>• License livestock grazing use up to 171 animal unit months on BLM lands; PacifiCorp lands would be leased up to about 2,500 animal unit months depending on restoration goals and improvement</li> <li>• Rangeland health standards assessments</li> <li>• Periodic grazing use supervision</li> <li>• Implement/maintain rangeland improvement projects</li> <li>• Grazing management consistent with wildlife habitat maintenance/improvement</li> <li>• Construct up to 2 miles of additional fencing on the north Klamath River canyon rim to control livestock drift</li> </ul>	<p>BLM, 0; PacifiCorp, 0</p> <ul style="list-style-type: none"> <li>• <i>Note:</i> Livestock grazing would only be used as a tool to achieve other resource objectives and may not be used at all; there would be no formal grazing leases for BLM or PacifiCorp lands</li> <li>• Periodic grazing use supervision (unauthorized use detection)</li> <li>• Implement/maintain rangeland improvement projects</li> <li>• Grazing management consistent with wildlife habitat maintenance/improvement</li> <li>• Construct up to 2 miles of additional fencing on the north Klamath River canyon rim to control livestock drift</li> </ul>	<p>BLM, 125 to 171; PacifiCorp, 1,500 to 2,500</p> <ul style="list-style-type: none"> <li>• License livestock grazing use up to 171 animal unit months on BLM lands; PacifiCorp lands would be leased in the 1,500–2,500 animal unit month range depending on the amount of land devoted to other resource uses</li> <li>• Rangeland monitoring data collection</li> <li>• Rangeland health standards assessments</li> <li>• Periodic grazing use supervision</li> <li>• Implement/maintain rangeland improvement projects</li> <li>• Grazing management consistent with wildlife habitat maintenance/improvement</li> <li>• Construct up to 2 miles of additional fencing on the north Klamath River canyon rim to control livestock drift</li> </ul>
<b>WILD HORSES</b>				
	<ul style="list-style-type: none"> <li>• Monitoring of Pokegama Herd and its habitat</li> <li>• Periodic removals to stay within the appropriate management level</li> <li>• Update “Pokegama Herd Management Area Plan”</li> <li>• Management of the herd management area consistent with BLM Regulations, 43 CFR 4700 and current BLM policy and direction</li> </ul>	<ul style="list-style-type: none"> <li>• Monitoring of Pokegama Herd and its habitat</li> <li>• Periodic removals to stay within the appropriate management level</li> <li>• Update “Pokegama Herd Management Area Plan”</li> <li>• Management of the herd management area consistent with BLM Regulations, 43 CFR 4700 and current BLM policy and direction</li> </ul>	<ul style="list-style-type: none"> <li>• Monitoring of Pokegama Herd and its habitat</li> <li>• Periodic removals to stay within the appropriate management level</li> <li>• Update “Pokegama Herd Management Area Plan”</li> <li>• Management of the herd management area consistent with BLM Regulations, 43 CFR 4700 and current BLM policy and direction</li> </ul>	<ul style="list-style-type: none"> <li>• Monitoring of Pokegama Herd and its habitat</li> <li>• Periodic removals to stay within the appropriate management level</li> <li>• Update “Pokegama Herd Management Area Plan”</li> <li>• Management of the herd management area consistent with BLM Regulations, 43 CFR 4700 and current BLM policy and direction</li> </ul>

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<b>FIRE AND FUELS</b>				
	<ul style="list-style-type: none"> <li>• Provide appropriate management response emphasizing initial attack on all wildland fires</li> <li>• The fuels management program would be implemented with random selections and would include minimal fuel treatment around recreation areas</li> <li>• Fuels treatment would cover 1,171 acres/decade; under this alternative, returning the fire adapted ecosystems to sustainable function and structure to plant communities to desired future conditions would take the longest timeframe</li> <li>• Monitoring would be implemented to determine whether fuels treatments are meeting resource objectives</li> <li>• A smoke management/air quality plan would be completed</li> <li>• Initiate cooperative assistance agreements with private landowners (Wyden Amendment) to meet fuels management objectives across ownership boundaries</li> </ul>	<ul style="list-style-type: none"> <li>• Provide appropriate management response emphasizing initial attack on all wildland fires</li> <li>• The fuels management program would emphasize hand treatments with piling and burning of materials and some random prescribed burn selections to be performed</li> <li>• Fuels treatment would occur on 4,510 acres/decade; treatments would be located to minimize their being seen from the river and other key observation points; fire may be used to enhance species in Native American traditional use areas</li> <li>• Monitoring would be implemented to determine whether fuels treatments are meeting resource objectives</li> <li>• A smoke management/air quality plan would be completed</li> <li>• Initiate cooperative assistance agreements with private landowners (Wyden Amendment) to meet fuels management objectives across ownership boundaries</li> </ul>	<ul style="list-style-type: none"> <li>• Provide appropriate management response emphasizing initial attack on all wildland fires</li> <li>• The fuels management program would emphasize greater use of prescribed fire on all forest/woodland and shrub stands; treatments would exceed the random selection program</li> <li>• Fuels treatments would occur on 6,958 acres/decade; location of treatment sites would be less restrictive and could occur throughout the canyon; under this alternative, returning the fire adapted ecosystems to sustainable function and structure to plant communities to desired future conditions will take the shortest timeframe</li> <li>• Monitoring would be implemented to determine whether fuels treatments are meeting resource objectives</li> <li>• A smoke management/air quality plan would be completed</li> <li>• Initiate cooperative assistance agreements with private landowners (Wyden Amendment) to meet fuels management objectives across ownership boundaries</li> </ul>	<ul style="list-style-type: none"> <li>• Provide appropriate management response emphasizing initial attack on all wildland fires</li> <li>• The fuels program would have greater emphasis on the use of mechanical treatment with large equipment</li> <li>• Fuels treatments would occur on 4,580 acres/decade; treatment emphasis would be to treat areas along roads and near recreation sites, although treatment sites could occur throughout the canyon</li> <li>• Monitoring would be implemented to determine whether fuels treatments are meeting resource objectives</li> <li>• A smoke management/air quality plan would be completed</li> <li>• Initiate cooperative assistance agreements with private landowners (Wyden Amendment) to meet fuels management objectives across ownership boundaries</li> </ul>
<b>LAND TENURE ACTIONS</b>				
	<ul style="list-style-type: none"> <li>• No changes in land tenure would occur as part of this plan</li> </ul>	<ul style="list-style-type: none"> <li>• Land tenure objectives would be to purchase lands or develop management agreements, or pursue conservation easement on lands which encompass the riparian reserves and historic flood plains of the Klamath River, Shovel Creek, and Hayden Creek with the planning area</li> </ul>	<ul style="list-style-type: none"> <li>• Acquisition of lands or management agreements/conservation easements would be pursued within Shovel Creek Watershed boundaries and all nonpublicly-held lands within the riparian reserves and historic floodplains of the Klamath River and Hayden Creek</li> </ul>	<ul style="list-style-type: none"> <li>• Acquisition of lands or develop management agreements or conservation easements in order to establish and/or ensure public access to the Klamath River and lower Shovel Creek</li> </ul>



